FINANCIAL HISTORY

The magazine of the Museum of American Finance

Remembering John Whitehead

Monopoly's Lost Female Inventor

Early Wall Street, 1830–1940

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FINANCIAL HISTORY

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ON THE COVER

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John C. Whitehead, former co-chairman of Goldman Sachs and Deputy Secretary of State, passed away in February. He had been the co-chair of the Museum of American Finance's Advisory Board. See article, page 20.

Remembering My Friend and Advisor, John Whitehead

Message to Members

David J. Cowen | President and CEO

By almost every measure, the Museum's 2015 Gala was our finest ever. We smashed all records in both fundraising and attendance. The Events Committee, led by Susan Stupin, created a memorable evening, and my thanks go out to our staff and Board for all of their hard work and effort. I would also like to extend a personal thank you to Lin-Manuel Miranda for taking time out of his now hit musical, "Hamilton," to sing a number from his show. And heartfelt thanks to our honoree David Rubenstein, who greatly assisted in making the night a terrific one.

In his remarks, David created a witty letter from Alexander Hamilton, which spoke to the importance of giving back to one's country, as Hamilton so often did. He asked attendees to "remember the Museum of American Finance in your thoughts about how to help your country. Reminding our fellow citizens of the importance of finance—and the mistakes it can create—is a real (in a word I have learned here) mitzvah." That evening, David demonstrated his giving pledge leadership and reinforced why he is deserving of our highest honor, the Whitehead Award.

There was only one thing missing that evening, and that was John Whitehead. John had attended all of our previous galas, but he was unable to attend this one due to illness. I read a statement from him to the crowd, and I called him the next day to update him on the gala. He was his usual optimistic self and was pleased to know how well the evening went. It was the last time we spoke, as he passed away a few weeks later.

The Museum had already established a close relationship with John by the time I became president in 2009. He was influential in the LMDC's decision to assist with $1 million in capital to enable the Museum's expansion and move to Wall Street. The Advisory Board was in formation when I joined the Museum, and I consider myself fortunate to have led our interaction with John for the past 5½ years.

Spending time with someone who had such unparalleled integrity and respect, and with so much wisdom to share, was unquestionably one of my favorite things to do. While initially my interactions with John were purely business, over time we began to discuss other things, like his experiences in World War II and his time as Deputy Secretary of State. He had a good sense of humor, which added to the enjoyment. When he was once unable to line up a phone call for the Museum, he was exasperated and said, "David, after all even the Communists take my phone call!"

While formal in the sense that he always had a jacket on, he was warm and had that twinkle in his eye. I liked how he handled problems, never getting ruffled, working on a path forward towards resolution. One phone call from John got my attention right away. It had to do with a gala issue, and John started with "we have a problem." I had never heard John use those words. But in short order we resolved it the way we always had, without drama, without ego and staying focused on the problem. That was the Whitehead way.

John's passing leaves a void in our Museum's heart, and he will be missed by all. Especially me. $

Elsa Ruiz

Left to right: Lin-Manuel Miranda, David Rubenstein and David Cowen at the 2015 Gala.

APR 1 1901 Northern Pacific railway stock hits $96 a share as E.H. Harriman and J.P. Morgan fight for control of the railroad. The stock goes up 942% to $1,000 per share before it collapses.

APR 9 1720 The earliest known discussion of securities analysis is published in *The London Flying-Post*, as several authors debate how to calculate the value of South Sea Company shares.

David Rubenstein Receives Whitehead Award at 2015 Museum Gala

More than 300 guests turned out to support the Museum and honor David M. Rubenstein on January 13, as he received the Whitehead Award for Distinguished Public Service and Financial Leadership at the Museum's 2015 Gala. Named after John C. Whitehead, the award is presented annually to a person who has demonstrated a high order of achievement and leadership in the field of finance, and also served with notable distinction in the public sector.

Rubenstein is co-founder and co-CEO of The Carlyle Group, one of the world's largest and most successful private equity firms, as well as chairman of the Board of Trustees of the John F. Kennedy Center for the Performing Arts and Duke University, a regent of the Smithsonian Institution, co-chairman of the Brookings Institution, vice chairman of the Council on Foreign Relations and president of the Economic Club of Washington.

The 2015 Gala was the Museum's largest to date and raised more than $1 million to support its programs and further its mission of financial education. $

1. David M. Rubenstein (right), pictured with Museum President David Cowen (left) and Chairman Richard Sylla (center), receives the 2015 Whitehead Award.

2. Grammy and Tony Award-winning artist Lin-Manuel Miranda performs a selection from his new "Hamilton" musical prior to dinner at Cipriani Wall Street.

3. David Rubenstein delivers humorous remarks, including the reading of a letter reportedly penned by Alexander Hamilton.

4. Former Secretary of the Treasury Robert Rubin introduces David Rubenstein.

5. Museum Trustees Consuelo Mack, David Shuler, Martha Clark Goss and Andrea de Cholnoky.

Photos: Elsa Ruiz

MUSEUM OF AMERICAN FINANCE BENEFACTORS (2014–2015)

The Museum is most grateful for the financial support of these major donors to help advance our commitment to preserving, exhibiting and teaching the power and value of American finance.

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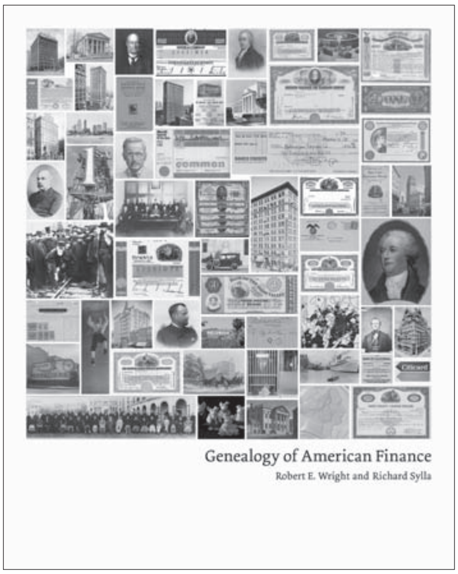
► For information about the Museum's benefactor program, please contact Mindy S. Ross at 646-833-2755 or mross@moaf.org.

APR 10 1991 The Leningrad Commodity and Stock Exchange (now the St. Petersburg Stock Exchange) re-opens for trading after decades of closure under Communism.

APR 20 1983 President Ronald Reagan signs the Social Security Amendments of 1983, delaying cost-of-living adjustments and making 50% of Social Security benefits taxable.

Museum Launches Book and Website Tracing the "Family Trees" of the 50 Largest US Banks



On March 10, the Museum and Columbia Business School Publishing launched *Genealogy of American Finance*, a new book featuring the genealogical "family trees" of the nation's 50 largest banks alongside beautifully illustrated narrative histories of each bank.

Authored by renowned financial historians Dr. Robert E. Wright and Dr. Richard Sylla, the book explores how 50 financial companies came to dominate the US banking system and their impact on the nation's political, social and economic growth. A story that spans more than two centuries of war, crisis and opportunity, it reminds readers that American banking was never a fixed enterprise but has evolved in tandem with the country.

"This project sheds tremendous light into the dynamic nature of our nation's financial history," said Charles M. Royce, CEO of The Royce Funds who is also the underwriter of the project. "One can never completely understand the future without a comprehension of the past. In an easy-to-read and understandable manner, this book gives a narrative history that is accessible by all — from the newcomer working at a bank to the finance professional, from the student to the scholar, from the practitioner to the regulator."

David Cowen, President and CEO of the Museum, said, "The histories of US financial institutions are complex with implications that have greatly influenced the way we all work and live today. We are proud and excited to be a part of this project, as our goal as a Museum is to continually be an educator about the history of American finance — past, present and future."

A companion website featuring the unabridged family trees of each bank is available at www.moaf.org/newbook. $

MoAF Bitcoin Event Draws Record Crowd

More than 300 people attended the Museum's February 11 event on "Bitcoin and the Future of Payments Technology." The program featured a fireside chat with former US Treasury Secretary and President *Emeritus* of Harvard University Lawrence H. Summers conducted by Michael Casey, senior columnist for global finance at *The Wall Street Journal*, followed by a panel discussion. Participants included Jeremy Allaire, founder and CEO of Circle; Charles Cascarilla, CEO and co-founder of itBit; Lawrence Goodman, president of the Center for Financial Stability; and Paul Vigna, reporter and "Money Beat" host at *The Wall Street Journal*.

The event was sponsored by Voya Financial and coincided with the launch of Casey and Vigna's new book, *The Age of Cryptocurrency: How Bitcoin and Digital Money are Challenging the Global Economic Order*. $

Elsa Ruiz

Former US Treasury Secretary Lawrence H. Summers spoke at the Museum's Bitcoin panel in February.

MAY 1 1792 One of the first IPOs in US history is launched, as the Western and Northern Inland Lock Navigation Companies go public at the Tontine Coffee House in New York City and Lewis' Tavern in Albany.

MAY 6 1870 Amadeo Peter Giannini is born in California. Thirty-four years later, he founds the Bank of Italy in San Francisco. Today, as Bank of America, it is one of the world's largest financial institutions.

“America in Circulation: A History of US Currency Featuring the Collection of Mark R. Shenkman” Exhibit Opens

On April 15, the Museum opened “America in Circulation: A History of US Currency Featuring the Collection of Mark R. Shenkman.” The exhibit provides visitors with the opportunity to view hundreds of beautiful and rare examples of American paper money and to explore them in more depth through large interactive touch screen displays.

From Colonial times, American money has told a fascinating and detailed story of the country’s struggles and successes. Pivotal moments in history have led to changes in the nation’s money, as crises have brought about innovation. Often local and national currencies competed and coexisted with each other, while economic depression, war and counterfeiting drove constant advances in design.

“Today, there are only seven notes in circulation. Yet most Americans don’t realize that both the banks and the government were issuing many different types of currency for most of our nation’s first 150 years,” said Museum President David Cowen. “The notes in this exhibit tell the story of the development of America, and their striking beauty makes them pieces of art in and of themselves.”

The exhibition features approximately 250 notes spanning from the Colonial era to the present day. Highlights include rare examples of currency bearing the signatures of signers of the US Constitution and Declaration of Independence; a complete set of notes from the Educational Series of 1896, renowned for being the most beautiful paper money in American history; and uncommon examples of high denomination notes including $5,000 and $10,000 bills.

“I am excited and honored to showcase my collection of American currency at the Museum of American Finance,” said Mark Shenkman. “Visitors of all ages will now be able to enjoy the beautiful engravings of hundreds of notes spanning three centuries, and to view and explore them as never before through an engaging use of technology.”

“America in Circulation” will be on view through March 2018 in the Museum’s money gallery. An online version of the exhibition is available at www.moaf.org/money. $

Collection of Mark R. Shenkman

Clockwise from top left: $50 Continental Note, 1779; $20 Gold Certificate, series of 1905; $2 Educational Series Silver Certificate, 1896; $5 Legal Tender Note, 1869.

MAY 15 1911

The Supreme Court upholds the US government’s decision to break up John D. Rockefeller’s Standard Oil Company on the grounds that it is a monopoly.

MAY 20 1862

President Abraham Lincoln signs the Homestead Act into law, enabling anyone who had farmed public land for five years or more to acquire title to 160 free acres.

Museum Displays "Legal Tender" Exhibition Featuring Currency Flag Paintings of Artist Emily Erb

On April 1, the Museum opened "Legal Tender," an exhibition featuring the work of Philadelphia-based artist Emily Erb. The solo exhibition consists of large-scale flag paintings depicting US paper currency produced from 1862 through the present.

In 2012, Erb began to examine the subject of money through her painting practice. Pulling a dollar out of her pocket and photocopying the front and back at 18 times its original size, the artist then layered silk fabric over the enlarged photocopy and trace-painted the two sides of the giant bill. The result was an enlarged replica that the artist hung like a flag in various public spaces throughout Philadelphia.

In "Legal Tender," Erb ironically offers up 12 representations of metaphorically counterfeit money as a luxurious creative medium of exchange in silk paintings installed from flagpoles. Conflating American currency with patriotic symbols of national identity, the artist initiates a dialogue on what constitutes the nation's collective value system.

"Legal Tender" was curated by the Delaware Center for the Contemporary Arts' Gretchen Hupfel Curator of Contemporary Art, Maiza Hixson. It will be on view through August 31, 2015. $

Artist Emily Erb employs the ancient Indian technique of silk painting to reflect a global perspective on the history of American money. Shown here are the fronts of three of the 12 flags in the "Legal Tender" exhibition.

JUN 2 1987

President Reagan taps an economic consultant named Alan Greenspan to replace the renowned Paul Volcker as chairman of the Federal Reserve.

JUN 6 1964

The Securities Exchange Act—which created the US Securities & Exchange Commission (SEC)—is signed into law by President Franklin D. Roosevelt.

Volunteer Spotlight: Mark Anderson

One of the Museum's most valuable assets is its network of experts in various areas of finance and economic history. One of these experts is Mark Anderson, who volunteers his time as a numismatic consultant.

A career banker and now consultant, Mark became interested in currency at the age of 11, when he received a small five peseta note in change on a bus in Spain. Equivalent at the time to about 7.5 cents US, but artfully engraved, he inquired about it, and the bus driver produced several other pieces of beautiful small change notes, in denominations of as little as one peseta [1.4 cents US at the time]. Unlike US currency, Spanish currency designs and portraiture changed every few years, and many of the beautiful but demonetized bank notes issued before the Spanish Civil War could be acquired for pennies. A modest allowance let him build an interesting and representative collection.

College exposed Mark to the study of economics, instilling in him a life-long love of fiscal and economic history, and as he continued to collect, he went on to a 22-year career at European American Bank (EAB) and, later, EAB's acquirer,

Citibank [in 2001]. A later phase, working at auction house RM Smythe, offered him the opportunity to become better acquainted with the Museum through its founder, John Herzog.

At the Museum, Mark has consulted on a variety of projects, from fielding research and media requests to assisting with exhibitions. A guest curator of the Museum's new "America in Circulation" exhibit, he has also spoken at events in the Lunch and Learn Series.

Over time, Mark's collecting interests have broadened, but he still finds the study of paper money a recurring preference. "Paper money has never had the intrinsic value that traditionally made people willing to use coins. The only rationale for its manufacture and employ is people's belief that the promises written upon it will be kept. That trust is unique to humankind, and noble to boot."

Mark's interests in economics, finance and history dovetail in his activities at the Museum. "Any country or community's history is ultimately an economic history, and that story is best told by its objects. Going back to the time before Christ, few objects are more informative than a people's financial instruments. The Museum uses this approach to tell the history of North America, beginning with wampum and pieces of eight. Whether you are interested in how markets work or how they have evolved, how our economy functions and what drives it, what our money says about us and what it used to say about us, there is no better place to learn about these things than the Museum. The Museum's mission is not just very important, particularly in this town, but it is unique." $

SPRING 2015 EVENTS

Apr 21 Evening Lecture: Nobel Laureate Joseph Stiglitz on *The Great Divide: Unequal Societies and What We Can Do About Them.* Talk followed by Q&A, book signing and reception. 5:30 – 7:00 p.m. $15 admission; members and students free.

Apr 29 Lunch and Learn: Harley Spiller – the "Inspector Collector" – on *Keep the Change: A Collector's Tales of Lucky Pennies, Counterfeit C-Notes, and Other Curious Currency.* Talk followed by Q&A and book signing. 12:30 – 1:30 p.m. $5 includes Museum admission; members and students free.

May 15 Walking Tour: Scandals and Scoundrels. 11:00 a.m. – 12:30 p.m. $15 includes admission to the Lunch and Learn with Ian Klaus.

May 15 Lunch and Learn: Ian Klaus on *Forging Capitalism: Rogues, Swindlers, Frauds and the Rise of Modern Finance.* Talk followed by Q&A and book signing. 12:30 – 1:30 p.m. $5 includes Museum admission; members and students free.

Jun 16 Lunch and Learn: Nathaniel Popper on *Digital Gold: Bitcoin and the Inside Story of the Misfits and Millionaires Trying to Reinvent Money.* Talk followed by Q&A and book signing. 12:30 – 1:30 p.m. $5 includes admission; members and students free.

For more information or to register online, visit www.moaf.org/events.

JUN 21 1970 The Penn Central, one of the world's largest and oldest railroad operators, declares bankruptcy when the federal government refuses to guarantee $200 million in emergency loans.

JUN 30 1932 The total market value of all stocks listed on the New York Stock Exchange scrapes bottom at $15.6 billion, down from $89.7 billion on September 1, 1929.

Financing the American Dream: A History of the Fully-Amortized 30-Year Mortgage

By Dan Cooper and Brian Grinder

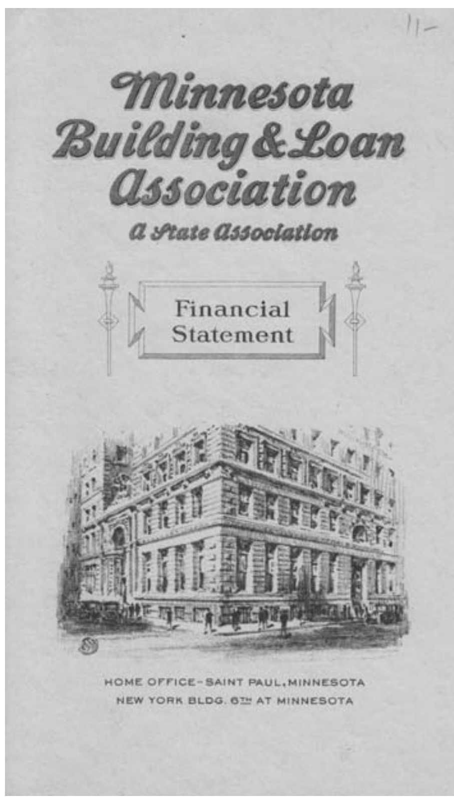
A "DEAD PLEDGE" sounds more like a contract that Captain Jack Sparrow might enter into than the typical American family. Yet for many who aspire to the American Dream of homeownership, that's exactly what they're agreeing to when they finance their homes with a mortgage. The literal meaning of the term "mortgage," according to the *Oxford English Dictionary*, is "dead (from the Old French term 'mort') pledge (from the Old Germanic term 'gage')." Today the American Dream home is likely to be financed with a fully-amortized fixed-rate 30-year mortgage. The astute reader will notice that the term "mort" is also a component of the word "amortize," which literally means "to death." Is the American Dream of homeownership a dream financed under a double death threat? Fortunately, it's not as morbid as it seems.

According to The Word Detective, "The logic of 'mortgage' is that of a 'dead pledge,' meaning that if the borrower repays the loan as agreed, the property becomes 'dead' to the lender, who has no further rights to it. And if the borrower fails to pay, all of his or her rights to the property cease."[1]

To "amortize" a loan means to slowly kill off the principal or amount borrowed. With an amortized loan, part of each fixed payment goes toward paying off the interest owed for the period of time since the last loan payment. The remainder of the payment goes towards paying off the principal. With a fully-amortized mortgage, the entire principal is fully paid off when the last payment is made and the borrower owes nothing more on the loan. The fully-amortized mortgage is an innovative financial instrument that came into common use during the Great Depression.

Real estate economists Richard K. Green and Susan M. Wachter remind us that "The US mortgage before the 1930s would be nearly unrecognizable today." In spite of the increase in homeownerships during the 1920s, most families did not own their own homes. Loan-to-value ratios were typically 50% or less, meaning that a down payment of at least 50% was required to qualify for a mortgage.[2]

Many homeowners were unable to save up for the hefty down payment and financed it by taking out a second mortgage from a non-traditional lender, such as the previous homeowner or a homebuilder, at a higher rate of interest than



Collection of the Museum of American Finance

Specimen financial statement from the Minnesota Building and Loan Association.

the first mortgage. Most mortgages were of the interest-only variety,[3] were financed for short-term periods from five to 10 years and required a balloon payment of the remaining principal at the end of the loan's life. As a result, borrowers were constantly refinancing or renegotiating the terms of their loans, some on a yearly basis. These types of loans worked well as long as house prices remained stable or increased, but in a market downturn, they spelled trouble.

"B&Ls [Building and Loan Associations]," writes economic historian Kenneth A. Snowden, "were the only lenders to write amortized, long-term mortgages in the late 19th century." A B&L, according to Snowden, "was a small, local and undiversified mutual fund into which members contributed weekly or monthly dues; the pooled dues were then lent to members who chose to purchase…homes. The interest payments and fees on these loans, net of expenses and loan losses, were returned to members as dividends."

B&Ls were an important source of mortgage loans in the 1920s.[4] They used what was known as the "Philadelphia Plan" or share accumulation loan plan to simulate an amortized mortgage. Under this plan, the borrower obtained an interest-only loan, often from a bank, for less than 60% of the home's value. The B&L then required the borrower to make monthly payments that were used to purchase shares of the B&L. When the value of the accumulating shares and the dividends earned on those shares equaled the loan's principal, the mortgage was paid off, and the homeowner was given full title to the property.

A potential problem occurred if the value of the shares fell because it forced the borrower to make additional payments in order to pay off the principal. B&L share prices dropped dramatically during the Great Depression as house prices also dropped. Many homeowners, who were either unable to make their interest payments or, worse yet, unable or unwilling to refinance their loans, exacerbated the situation. Although financial institutions displayed a great deal of forbearance, foreclosures eventually reached a peak of more than 1,000 per day by 1933. B&Ls were particularly hard hit. In 1929, there were about 12,000 B&Ls operating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ONE HUNDRED DOLLARS

in cash to said association.

The holder of this stock is not entitled to participate in the profits of the Association, but shall be paid interest upon One Hundred Dollars for each share represented by this certificate, at the rate of seven per centum per annum, payable semi-annually on the first days of January and July of each year, according to the terms of the interest coupons hereto attached.

This certificate may be surrendered for cancellation by the holder hereof, or called in for cancellation by the Association, at any time after thirty days from date, upon thirty day's notice thereof; and, upon such cancellation, the holder hereof, shall receive from said Association, for each share cancelled, the sum of One Hundred Dollars, with interest at the aforesaid rate to the date of cancellation.

IN WITNESS WHEREOF, THE OKLAHOMA CITY BUILDING AND LOAN ASSOCIATION has caused this certificate to be signed by its Vice-President and Secretary, and its corporate seal affixed hereto, at Oklahoma City, Oklahoma, this 14th day of November A. D., 1919.

Secretary.

Vice-President.

Collection of the Museum of American Finance

Oklahoma City Building and Loan Association stock certificate, 1919.

in the United States, but by 1933 about 5,000 had been forced to close. By 1941 more than half of the B&Ls operating in 1929 had failed. As things grew worse, the federal government intervened in an attempt to relieve the crisis.

Economist Alan Blinder, along with Green and Wachter, contend that the fixed-rate, self-amortizing, long-term mortgage was invented by the Home Owners' Loan Corporation (HOLC), one of the alphabet agencies created by the Roosevelt administration to deal with the mortgage crisis. The HOLC was established in 1933 and charged with buying the mortgages of those who were "in hard straits through no fault of their own." It was authorized to issue government guaranteed bonds, use the proceeds to purchase mortgages that were in default, and refinance them on more generous terms. Lending institutions were generally happy to get these troubled loans off their books, while borrowers were afforded more reasonable terms on HOLC loans. In the three years after its inception, the HOLC converted about one million short-term, interest-only loans into fixed-rate, 15-year fully-amortized mortgages.

The book *Well Worth Saving: How the New Deal Safeguarded Home Ownership* by Price Fishback, Jonathan Rose and Kenneth Snowden begins with the story of a couple from Coeur D'Alene, Idaho, who purchased their home in 1929 for \$3,000. A down payment of \$1,750 was required, and the remaining \$1,250 was borrowed from the Citizens Savings and Loan Society in Spokane, Washington. The husband was a truck driver who made over \$2,000 a year during the 1920s, but in the early 1930s his wife became terminally ill. Faced with mounting medical bills and a severely reduced income because of the Depression, the couple stopped making payments on their mortgage in late 1931.

Two and a half years later, Citizens Savings was on the verge of foreclosing when the now-widowed husband applied for a loan from the HOLC. In spite of the fact that the home was now worth only \$2,500, the HOLC purchased the loan for the full value that was owed to Citizens Savings, including the interest payments that had not been made over the past two and a half years. The HOLC then consolidated the debts of the homeowner and reissued a loan with a below market interest rate of 5%. The loan principal amount also included money for payment of back taxes and much needed home repairs. With low monthly » *continued on page 36*

MONOPOLY'S LOST

Courtesy of Tom Forsyth

The Landlord's Game, precursor to Monopoly, was patented by Lizzie Magie in 1904.

By Mary Pilon

For many years, the story of Monopoly's origins began with a man during the Great Depression. However, the game actually dates back to a left-wing woman, Lizzie Magie, who received a patent for her Landlord's Game back in 1904. In this excerpt from her book The Monopolists, *Mary Pilon explains who Magie was and what she was trying to say with her revolutionary business board game.*

To Elizabeth Magie, known to her friends as Lizzie, the problems of the new century were so vast, the income inequalities so massive, and the monopolists so mighty that it seemed impossible that an unknown woman working as a stenographer stood a chance at easing society's ills with something as trivial as a board game. But she had to try.

Night after night, after her work at her Washington, DC, office was done, Lizzie sat in her home, drawing and redrawing, thinking and rethinking. It was the early 1900s, and she wanted her board game to reflect her progressive political views, which centered on the economic theories of Henry George. A charismatic 19th century politician and economist who had passed away just a few years before, George had been a proponent of the "land value tax," also known as the "single tax." His main tenet was that individuals should own 100% of what they made or created, but that everything found in nature, particularly land, should belong to everyone. Land was not meant to be seized, bought, sold, traded or parceled into city blocks where people were forced to pay exorbitant rents. Since, however, some people did own land, they should pay a tax for that privilege. All other goods should remain strictly untaxed.

George's message had resonated deeply with many Americans in the late 1800s, when poverty and squalor were on full display in the country's urban centers. Poor immigrants and natives alike were packed tightly together in noxious slums, where they slaved long hours in dirty, dangerous factories, earning little more than a pittance. The single-taxers believed that if all taxes were eradicated except for the one on property, and the poor and the working class were able to keep more of their hard-earned dollars, poverty levels would quickly diminish. A single tax would also boost production, as workers would be happier and healthier, and force business owners to improve working conditions.

George "is neither a 'Communist,' nor a free-lover, nor even an infidel, so far as can be seen," an 1881 *New York Times* article stated. "But he recognizes the social disease that makes itself felt in tramps, railway riots, and the criminal classes of great cities, and is the only man who has not merely put down clearly in black and white what are the causes of the disease, but offered a cure."

During the 1880s, his manifesto *Progress and Poverty* was rumored to have sold more copies than any book except the Bible. He spoke regularly before sold-out halls, and his face was plastered everywhere — on banners, newspapers and even cigar boxes. The list of people who were later influenced by his philosophy included Winston Churchill, Frank Lloyd Wright and Leo Tolstoy.

George was an ardent anti-monopolist, and many of his followers formed anti-monopoly political parties. "Chattel slavery is dead," he once told an evening crowd at the Brooklyn Academy of Music. "But labor slavery lives. That kind of slavery is increasing and social opinion is beginning to rise against it."

The anti-monopoly parties also served as staging areas for the women's rights movement. At the time, the battle for women's suffrage was already decades old, having been started by middle-class white women in Seneca Falls, New York, some 40 years earlier. But it felt to many as though little progress had been made. Women still did not have the right to vote, and their accomplishments were still being routinely dismissed by most men — a problem that Lizzie would personally face throughout her life. Outspoken female activists were often stigmatized, sometimes in the name of enforcing obscenity laws.

When George made a bid for mayor of New York City in 1886, he advocated not only the single tax but also equal pay for women, more stringent building inspections and putting an end to police interference in peaceful demonstrations. His platform appealed to many voters, but he lost to a Tammany Hall candidate.

The Georgists, as George's followers were known, faced formidable ideological opposition in the form of industrial titans such as John D. Rockefeller, one of the richest men in history, thanks to his Standard Oil Trust. Through secret agreements and shell companies that appeared independent but were in fact operated by Standard Oil, the trust had wiped out its competition and by the late 1800s, the company controlled nearly 90% of America's refined oil flows. Critics such as George noted that capitalism was good at creating wealth, but it could be lousy at distributing it.

When Henry George died in 1897, many of his followers feared that without their magnetic leader, the ideals he espoused would be lost forever and the monopolists would take control for good. It was up to Georgists such as Lizzie to keep his message alive. She felt that the economic fate of the country depended on it.

In the early 1900s, Lizzie was unmarried, unusual for a woman of her age at the time. Even more unusual, however, was the fact that she was the head of her household. Completely on her own, she had saved up for and bought her home, along with several acres of property. She lived in Prince George County, a Washington, DC, neighborhood where the residents on her block included a dairyman, a peddler who identified himself as a "huckster," a sailor, a carpenter and a musician

Lizzie's political views had been influenced, albeit indirectly, by Abraham Lincoln. In 1858, before she was born, Lizzie's father, James Magie, accompanied Lincoln and Joseph Medill, publisher of the *Chicago Tribune*, as the lanky lawyer traveled around Illinois debating politics with Stephen Douglas.

In earlier years, Lizzie's father had worked as a printer in Newark, NJ, and as a city editor at the *Brooklyn Daily Advertiser*. He had lost a wife and an infant daughter, leaving him to raise his surviving son, Charles, on his own. But by the time he met Lincoln, he was living in Illinois with his second wife, Mary, née Ritchie, from New Brunswick, NJ, and working as the editor of the *Oquawka Plaindealer*.

Young, bright and ambitious, James was itching to see political change come to the country, and he believed that Lincoln was the man to bring about that change. James used the pages of his newspapers to drum up support for abolition, as well as gaining a reputation for being an arousing stump speaker. Lincoln was elected President in November 1860.

In 1861, James moved to Macomb, IL, where he assumed editorial control of the *Macomb Journal*, eventually becoming its sole owner. The Southern states seceded in the spring of that year. James enlisted in the Union army, and in the summer of 1862 began to recruit other men in Illinois for the Northern cause. He was a private and refused promotion throughout the war, even though many called him "Sergeant."

Less than a week after General Robert e. Lee's surrender at Appomattox Court House, Lincoln was assassinated. Selling his interest in the *Macomb Journal*, James

moved his family to Canton, where he purchased a half interest in the *Canton Register*.

In 1866, Elizabeth, soon known as Lizzie, was born, to be joined a few years later by her sister, Alta. The family was solidly middle-class, with James continuing to work as a newspaperman and Mary tending to the home and children. From a young age, Lizzie had exposure to newsrooms. She also watched and listened during the years when her father clerked in the Illinois legislature and ran for office on an anti-monopoly ticket — an election that he lost.

The steam age gave way to the motor age, built on the backs of workers who did not necessarily share in the bounty, and creating massive corporations. In Illinois, Lizzie saw this play out every day: wealthy kingpins strolling down the streets alongside child laborers clad in tattered clothing, titan landowners living lives defined by carriages and high fashion alongside ordinary farmers struggling to survive. A national debate arose: Should government bust up the large corporations that were forming, or not?

When Lizzie was 13, her family suffered significant financial losses, probably due to the Panic of 1873, which had started six years earlier and was still having repercussions. It was triggered by several causes, including a fall in silver prices, railroad speculation, a trade deficit, property losses and general economic malaise tied to the Franco-Prussian War. Lizzie had to leave school to help support her family, a fact that she lamented long into her adulthood. She attended a convention of stenographers with her father and soon found work in that field.

Around 1890, the Magies moved to Washington, DC, where James found work in government service and helped found a church. Lizzie was his constant companion, and as time passed, the political and physical similarities between father and daughter deepened. Lizzie's father also shared with his daughter a copy of Henry George's bestselling 1879 tome, *Progress and Poverty*. The early seeds of what would later evolve into one of the most popular modern board games of all time had been planted.

Like James Magie, Lizzie traveled in highly political circles. She served as the secretary of the Woman's Single Tax Club of Washington and counted Henry George Jr., the like-minded son of her single tax idol, as one of her friends. The younger George worked as a reporter in Brooklyn and eventually served as a US representative from New York.

Lizzie found work as a stenographer and typist for the chief clerk of the Dead Letter Office, the receptacle for the nation's undeliverable mail. The Dead Letter clerks, many of them women, were responsible for sorting lost envelopes and parcels, and for disposing of the unclaimed mail, either by destroying it or by auctioning off its contents. In the evening after work, Lizzie pursued literary ambitions, writing poetry and short stories, and, as a player in Washington's nascent theater scene, performed on the stage, where she earned praise for her comedic roles.

Courtesy of the Anspach Archives

Lizzie Magie and the "monopoly" game she patented in 1904 appeared in the *Washington Evening Star,* January 28, 1936.

Unusual for a 19th-century woman, Lizzie also dabbled in engineering. She invented a gadget that allowed paper to pass through typewriter rollers with more ease. The invention also allowed typewriter users to place more type on a given page and made it possible for documents of different sizes to be placed into the machine.

On January 3, 1893, Lizzie went to the US Patent Office to lay legal claim to her invention. As a woman, she would have been a standout in that office at any age, but at 26, she was a phenomenon. Beside her and there to serve as her witness was her father, himself no stranger to the patent process, having applied for and won a few through the years.

James Magie's witnessing of his daughter's patent application, which was ultimately approved, was to be one of his final acts. Less than two weeks later, he fell ill amid the January cold and died while visiting his son, Charles, in Brooklyn. Lizzie was inconsolable.

Two years after the death of her father, Lizzie published a short story titled "For the Benefit of the Poor" in the January 1895 issue of *Frank Leslie's Popular Monthly*, one of the more prominent and popular journals of her time, counting Henry James among its contributors. The story told of an impoverished boy struggling to support himself and his invalid mother by selling bonbons in a theater. Nearly a century before the term the "Matthew effect" would be commonly used to describe the phenomenon in which the rich get richer and the poor get poorer, Lizzie included the pertinent passage from the Gospel of Matthew in her story: "For unto everyone that hath shall be given, and he shall have abundance; but from him that hath not shall be taken away even that which he hath."

Though the popularity of Henry George's theories was ebbing with attendance at meetings and lectures dwindling and Georgist political goals stalling in statehouses and at the polls, Lizzie still believed in them and taught classes about the single tax theory in the evenings after work. But she wasn't reaching enough people. She needed a new medium — something more interactive and creative.

At the turn of the 20th century, board games were becoming increasingly commonplace in middle-class homes. In addition, more and more inventors were discovering that the games were not just a pastime but also a means of communication. Lizzie took out her pen and paper.

She began speaking in public about a new concept of hers, which she called the Landlord's Game. "It is a practical demonstration of the present system of landgrabbing with all its usual outcomes and consequences," she wrote in a 1902 issue of the *Single Tax Review*. "It might well have been called the 'Game of Life,' as it contains all the elements of success and failure in the real world, and the object is the same as the human race in general seem[s] to have, i.e., the accumulation of wealth."

For Lizzie to try to put her ideas out in public so brazenly was something of a risk at that time. Most women didn't do such things. It would be nearly two decades before women gained the right to vote, and while innovations such as the typewriter and the telephone had afforded

new professional opportunities for women, common thought still held that they had little to contribute to the world of ideas. As one newspaper would put it in 1912, women may have greater longevity than men because "they don't use their brains as much as men."

Lizzie's game featured play money and deeds and properties that could be bought and sold. Players borrowed money, either from the bank or from each other, and they had to pay taxes.

Like Pachisi, later known as Parcheesi, a game from the Indian subcontinent that many Americans were already familiar with, Lizzie's game featured a path that allowed players to circle the board — in contrast to the linear-path design used by many games at the time. In one corner were the Poor House and the Public Park, and across the board was the Jail. Another corner contained an image of the globe and an homage to Henry George: "Labor upon Mother earth Produces Wages." Also included on the board were three words that have endured for more than a century after Lizzie scrawled them there: "Go to Jail."

Lizzie drew nine rectangular spaces along the edges of the board between each set of corners. A railroad was in the center of each nine-space grouping, with spaces for rent or sale on either side. Absolute Necessity rectangles offered goods like bread and shelter, and Franchise spaces offered services such as water and light. When players landed on the Luxury space, they paid $50 to the public treasury to receive a luxury ticket, which yielded $60 at the end of the game.

As gamers made their way around the board, they performed labor and earned wages. Every time players passed the Mother earth space, they were "supposed to have performed so much labor upon Mother Earth" that they received $100 in wages. Players who ran out of money were sent to the Poor House.

Players who trespassed on land were sent to Jail, and there the unfortunate individuals had to linger until serving out their time or paying a $50 fine. Serving out their time meant waiting until they threw a double. "The rallying and chaffing of the others when one player finds himself an inmate of the jail, and the expressions of mock sympathy and condolence when one is obliged to betake himself to the poor house, make a large part of the fun and merriment of the game," Lizzie said.

After going around the board a predetermined number of times, players retired, but still remained in the game until the last player had completed his or her final round. The person with the most wealth at the end of the game won.

From its inception, the Landlord's Game aimed to seize on the natural human instinct to compete. And, somewhat surprisingly, Lizzie created two sets of rules: an anti-monopolist set in which all were rewarded when wealth was created, and a monopolist set in which the goal was to create monopolies and crush opponents. Her vision was an embrace of dualism and contained a contradiction within itself, a tension trying to be resolved between opposing philosophies. However, and of course unbeknownst to Lizzie at the time, it was monopolist rules that would later capture the public's imagination.

On some level, Lizzie understood that the game provided a context — it was just a game, after all — in which players could lash out at friends and family in a way that they probably couldn't in daily life. She understood the power of drama and the potency of assuming roles outside of one's everyday identity. Games like hers provided a respite from the often-dreary conditions of daily life.

The Landlord's Game was a sophisticated way to get players interested in the single tax theory. The goal was to obtain as much land and wealth as possible, but the means of attaining them were Georgist — even when playing by the monopolist set of rules. When players landed on an "absolute necessity" space, such as bread, coal, or shelter, the player had to pay five dollars into the Public Treasury. "This represents indirect taxation," Lizzie said. Each time a player went around the board, noted by the "Mother Earth" space, the player received $100 for having "performed so much labor upon mother earth," Lizzie wrote, concurrent with the Georgist view that people should own value that they created on their own.

While other games of the time espoused moral instruction and/or entertainment, Lizzie's game embodied her unrelenting hope that if more people learned about George's theories, they would become proponents of them and the world would be better for it.

Lizzie believed that children as young as nine or 10 years old could play the Landlord's Game. "They like to handle the make-believe money, deeds, etc.," she said. "And the little landlords take a general delight in demanding the payment of their rent. They learn that the quickest way to accumulate wealth and gain power is to get all the land they can in the best localities and hold on to it. Let the children once see clearly the gross injustice of our present land system and when they grow up, if they are allowed to develop naturally, the evil will soon be remedied."

After years of tinkering, writing and pondering her new creation, Lizzie entered the US Patent Office for the second time on March 23, 1903, to secure her legal claim to the Landlord's Game. She quit her $100-a-month job at the Dead Letter Office and went to work at a private firm. Soon thereafter, she opened an office of her own.

In one of history's coincidences, Lizzie filed her claim on the same day that Orville and Wilbur Wright filed theirs for their "flying machine." Lizzie's application made its way through the agency's paperwork web more quickly than the Wrights', and on January 5, 1904, her patent was approved. At the time, less than 1% of all patents issued in the United States went to women.

At least two years later, Lizzie published the game through the economic Game Company, a New York–based firm that counted Lizzie as a part owner. The company produced a version of the game that was similar to what Lizzie had patented, but with signature single-taxer flair she had made a few changes. The game now included new spaces such as Oil Fields, Timberlands, Coal Mines and Farmlands — the type of goods that George and his followers felt should not be monopolized, as they were natural resources.

Her experimenting done, Lizzie faced what befalls all creators when their work is sent out into the world: the agony of waiting to see how it will be received. $

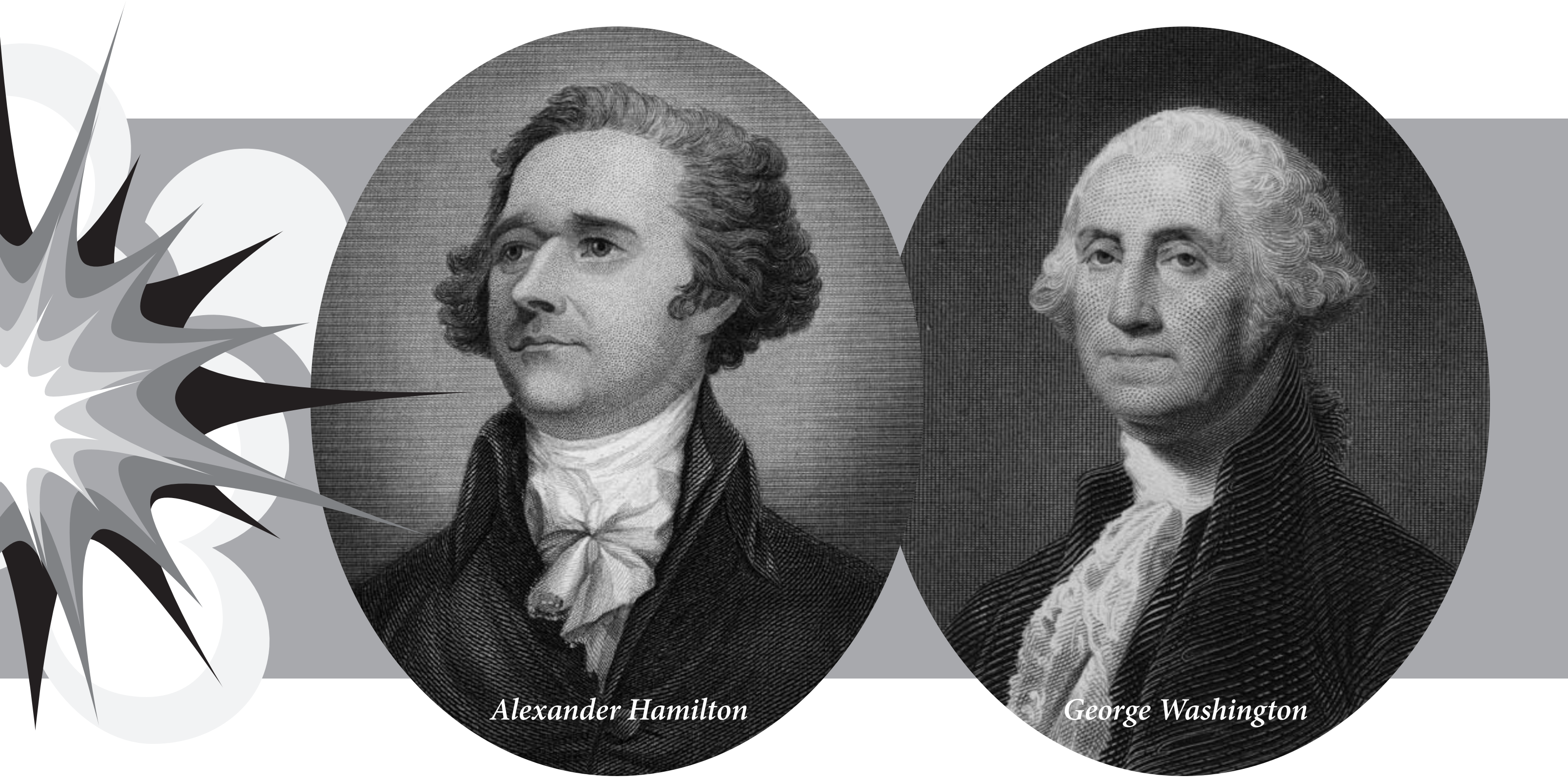
This article is adapted from The Monopolists: Obsession, Fury, and the Scandal Behind the World's Favorite Board Game, *by Mary Pilon, (Bloomsbury, 2015). Pilon has previously written about sports at* The New York Times *and business at* The Wall Street Journal. *She's on Twitter @marypilon and often plays Monopoly as the thimble.*

FROM *Disagreements* TO THE *First Divide*

Thomas Jefferson

James Madison

FOUNDING FATHERS DEBATE ECONOMIC ISSUES



Alexander Hamilton *George Washington*

By Thomas Fleming

In 1791, Secretary of the Treasury Alexander Hamilton submitted two new proposals in his ongoing plan to restore America's ruined credit at home and abroad. Secretary of State Thomas Jefferson and Congressman James Madison, leader of the House of Representatives, had quarreled angrily with Hamilton about the first stage of his program — the government's redemption of all outstanding debts, both state and federal, without any attempt to discriminate in favor of those who had held the original notes and sold them from financial necessity.

The first of these new proposals — a tax on whiskey — aroused little or no acrimony. Most people, including Jefferson and Madison, seemed to think it was a relatively painless way to increase the flow of revenue into federal coffers. Hamilton's argument that the money would enable the government to pay its current expenses and make regular payments on the national debt had considerable appeal.

There was a fair amount of debate on the subject. Albert Gallatin, a newly- elected Congressman from western Pennsylvania, joined other spokesmen for this region in warning that the measure would someday lead to violent protests. But the whiskey tax passed the House and Senate with comfortable majorities early in 1791.

Secretary Hamilton's second proposal, A Bank of the United States, was another matter. There was nothing in the Constitution empowering Congress to launch a bank. Nevertheless, President George Washington favored the idea. He had not mastered all the intricacies of Hamilton's bank, but he was a believer in banks as

a crucial way to concentrate a nation's economic strength. During the darkest years of the Revolution, 1780–81, when the nation's currency collapsed and the Continental Army faced starvation, Philadelphia's Bank of North America had issued notes which retained their face value and were used to purchase vital supplies and equipment for the Army.

The Bank of the United States was a great deal more complex than the Bank of North America, or the Bank of New York, which Hamilton had helped to found in his home city. In his proposal to Congress, the Secretary of the Treasury called it "a great engine of state." President Washington's tacit approval was well known, and this may have had much to do with the way the proposal passed the Senate almost casually, with a voice vote.

In the House of Representatives, a very different scene transpired. James Madison, still the acknowledged leader of this branch of the legislature, took the floor and shocked President Washington and Secretary Hamilton by opposing — and then denouncing — the idea. For a whole day, Madison lectured his fellow congressmen on what was wrong with the proposal. In essence, he argued that the absence of any mention of a bank in the Constitution meant that the framers of the national charter never intended to give the federal government the right to create such an entity.

No one was more astonished by this denunciation than Alexander Hamilton. During the Constitutional Convention, Madison had proposed giving Congress the power to charter banks and other corporations. The delegates had rejected the proposal. Now he cited this rejection but coolly neglected to mention that he had been the author of the proposal. In his Federalist Papers essays, Madison had ignored this earlier disapproval and repeatedly insisted there were implied powers in the Constitution that gave Congress the ability to deal with many aspects of federal governance.

Congressman Elias Boudinot of New Jersey was among a number of listeners who did not hesitate to remind Madison of his previous stance. Boudinot read aloud the words from Madison's essay, Federalist number 44: "There must necessarily be admitted powers by implication unless the Constitution descended to every minutia… No axiom is more clearly established in law or in reason that whenever the end is required, the means are authorized; whenever a general power to do a thing is given, every particular power for doing it is included." Thus the Constitution gave Congress the power to regulate the nation's commerce. Secretary Hamilton saw the Bank of the United States as an essential tool in this crucial task.

The House of Representatives agreed with Boudinot and Madison's other critics, who openly mocked his sudden transformation to a "strict" or literal interpreter of the Constitution he had done so much to create. The bill chartering the Bank of the United States passed the House by almost a two-to-one margin: 39 to 20. But this victory, immensely pleasing to Hamilton, soon became only the first act in a drama that would alter America's history.

President Washington, with his acute concern for the nation's unity, was alarmed to note that almost all the congressmen from states north of the Potomac River backed Hamilton's brainchild, while most of the southerners opposed it. Washington asked the lawyers in his cabinet, Secretary of State Jefferson and Attorney General Randolph, to give him their opinion of the bank bill. Soon the President had a strenuous essay by Jefferson on his desk, denouncing the bank with far more vehemence than Madison had exhibited in the House of Representatives. The Secretary of State insisted that permitting the federal government to exercise such an unspecified power could launch the nation toward a centralized federal tyranny.

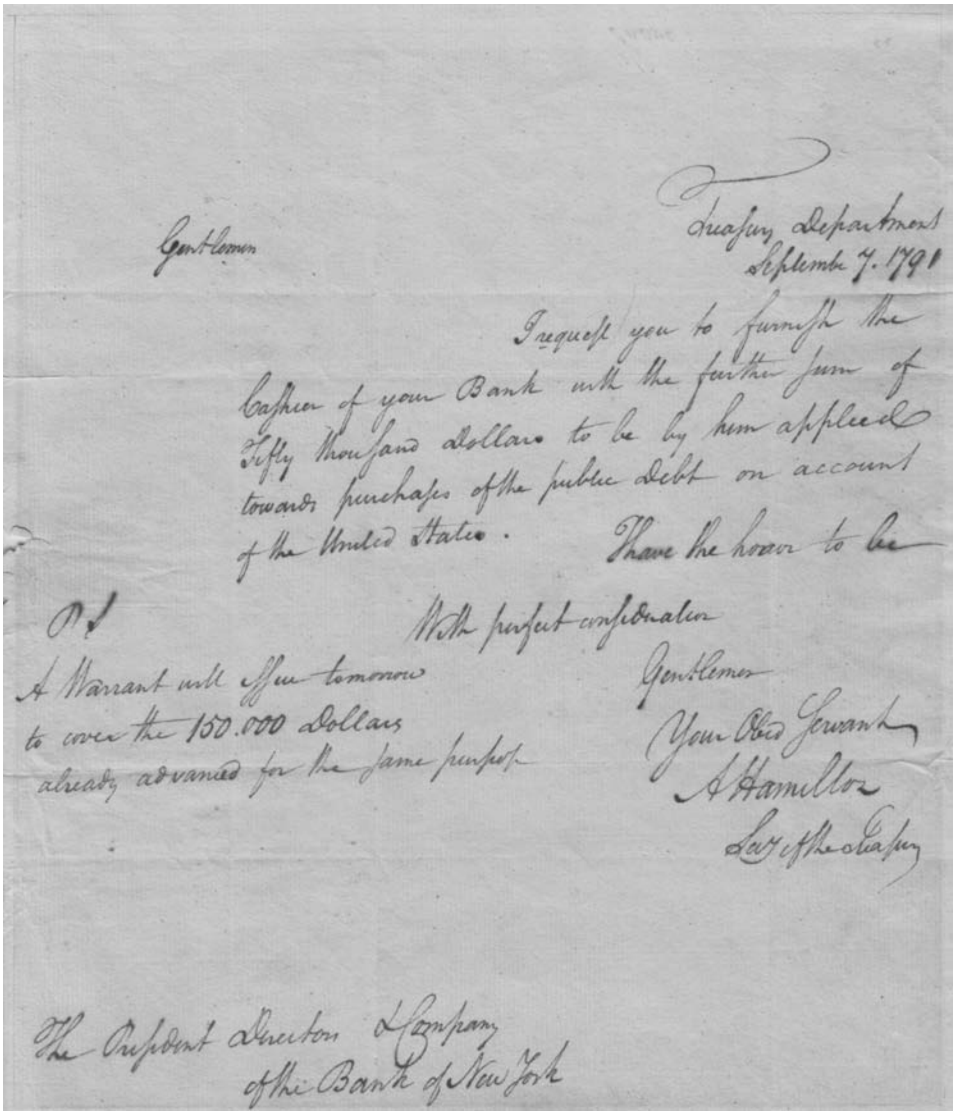
"To take a single step beyond the boundaries…specifically drawn around the powers of Congress is to take possession of a boundless field of power, no longer susceptible of any definition," the Secretary of State warned. Any extension of Congress's delegated powers had to be truly necessary. Otherwise, the American government would soon become a mirror image of the British model, where the King and Parliament regularly chartered corporations which enriched a privileged few. Jefferson backed up his arguments with a copy of Madison's speech to the House of Representatives.

Attorney General Randolph came to the same conclusion in a far less emotional essay. Washington, obviously upset, sent these opinions to Secretary Hamilton and asked him to reply to them. His covering letter was cold, almost curt, suggesting a loss of faith in Hamilton as an interpreter of the Constitution. Simultaneously, the President asked Madison to prepare a veto message — a glimpse of which way he thought the argument was going.

Literally working day and night, in the next seven days Hamilton produced a 15,000 word treatise that has become one of the most important documents in America's legal and political history. At its climax, he summed it up in a single triumphant sentence: "It is not to be denied that there are implied as well as express powers in the Constitution and the former are as effectually delegated as the latter." Supporting strict construction, as Jefferson and Madison were doing — arguing that all extensions of government power had to pass a test of being "absolutely necessary" was madness, Hamilton maintained. It would soon leave the United States with a malfunctioning and ultimately a nonfunctioning federal government. The states would eagerly rush to fill the power vacuum and would soon reduce federal authority to its pitiful condition under their former constitution, the Articles of Confederation.

In every sense of the word, Hamilton's argument was historic. He simultaneously justified the Bank of the United States and created a rationale for future exercises of federal power that has enabled the United States to function as a nation. President Washington read Hamilton's essay and signed the Bank of the United States into law the following day.

This was the moment when Jefferson and Madison began seeing the President as a mere tool in Hamilton's hands. There are strong reasons to challenge this conclusion. Washington was not a man who submitted to anyone's supposed expertise. He had disagreed strongly with Hamilton more than once in earlier years. When the Secretary convinced him that the Bank of the United States was constitutional, he had no further objections to it. Unlike his fellow Virginians, the President had no



Treasury Department
September 7. 1791

Gentlemen

I request you to furnish the Cashier of your Bank with the further sum of Fifty thousand dollars to be by him applied towards purchases of the public debt on account of the United States. I have the honor to be

With perfect consideration

Gentlemen

Your Obed Servant

A Hamilton

Secy of the Treasury

PS

A Warrant will issue tomorrow to cover the 150.000 Dollars already advanced for the same purpose

The President Directors & Company of the Bank of New York

Collection of the Museum of American Finance

Letter from Secretary of the Treasury Alexander Hamilton to Bank of New York President Gulian ver Planck, Esq., dated September 7, 1791, requesting the bank to purchase $50,000 worth of public debt.

difficulty seeing the bank as a dynamic commercial force that would help unite the new nation.

Washington was not in the least bothered by the BUS's similarity to the Bank of England. Unlike Jefferson, the President's view of the mother country was remarkably free of hostility. At a dinner Washington gave for British officers after they surrendered at Yorktown, one of them boldly offered a toast to "The King." Washington raised his glass and added: "Of England. Confine him there and I'll drink him a full bumper."

A few months after the Bank of the United States became law, a delighted President told one of his closest friends: "Our public credit stands on the ground which three years ago it would have been considered a species of madness to have foretold." Jefferson and Madison remained violently opposed to the bank. They saw it as an institution designed to enrich the wealthy—and warned it was tempting Americans to risk their money and their peace of mind in what Jefferson called "an appetite for gambling." Madison described the welcome that the bank received as "a mere scramble for public plunder."

In the spring of 1791, largely unaware that there was a deepening clash among his cabinet and close advisors, President Washington decided to take a trip through the southern states. He wanted to show the citizens below the Potomac that the President had the same concern for their welfare as he had displayed for the New Englanders the year before. He also wanted to reassure the southerners that signing the bank bill did not mean he was aligned with a so-called "northern phalanx" that, according to some Virginians, was conspiring to seize control of the government.

The trip was no small task. The President's itinerary covered 1,826 miles—a huge distance to traverse by horseback and coach. At every stop there were parades, rallies and dinners, at which he had to appear both affable and presidential to hundreds of strangers. The military side of Washington's character came to the fore. Every day was planned in advance; he let neither rain nor dust-choked roads delay him. His reward was the enormous enthusiasm with which people greeted him everywhere.

At Wilmington, North Carolina, "an astonishing concourse of people" included hundreds of women waving from windows and balconies. At a ball that night the President drew 62 beautifully gowned and coifed ladies. Simultaneously he played politics, telling a group of Freemasons led by war hero Mordecai Gist how pleased he was by their statement of support for "our equal government." The adjective was not chosen by accident.

Similar welcomes took place in every city. Washington returned home convinced that the people of the South "appeared to be happy, contented and satisfied" with the federal government. By and large he found the region prosperous and peaceful with no evidence of hostility to the whiskey tax, the funded debt or the Bank of the United States.

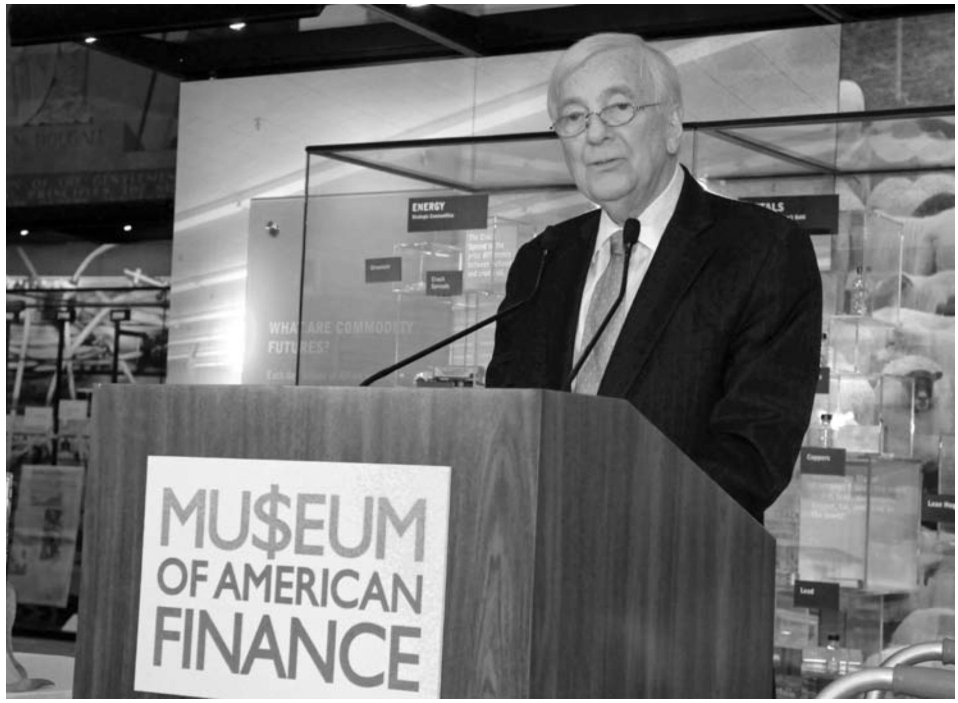
Only when the President returned to Philadelphia did he discover that not everyone approved of his trip. The most outspoken was a new voice on the newspaper scene, Benjamin Franklin Bache. This grandson of the founding father had launched the *Daily Advertiser*, with an undisguised tilt toward the French Revolution and a hostility to any and all tendencies in American politics that so much as hinted at a British model.

Bache thought Washington's tour smacked of the "royal progress" of a king, and » *continued on page 37*

JOHN WHITEHEAD (1922—2015)

Wall Street Titan, Cold Warrior, Friend to Thousands

By Gregory DL Morris



Elsa Ruiz

John Whitehead, pictured here at the 2009 Gala, was co-chair of the Museum's Advisory Board.

"America was fortunate that John Whitehead walked so many roads for us," said Henry A. Kissinger at the funeral of his friend in mid-February. "In view of the vastness of John's interests and the scope of his accomplishments, one is tempted to think of a flamboyant individual operating by eloquence and force of will. The opposite would be true. For John, the call to serve was paired with a reluctance to impose."

Whitehead was born in 1922 and grew up in Montclair, New Jersey. Despite being a mischievous lad, he earned the Eagle Scout award and entered Haverford College, a small Quaker liberal arts institution outside Philadelphia. He was working at the check-out desk of the school library when news came of the attack on Pearl Harbor. He was graduated under an accelerated program in January 1943 and joined the Navy.

Having shown aptitude in small vessels, Whitehead was given command of a small squadron of five landing craft for the Normandy assault on June 6, 1944, and he made one of the first major judgment decisions of his life. "Our orders were to crash straight ahead to the beach," he wrote in his autobiography, *A Life in Leadership* (Basic Books, 2005). In the rough waves and dim light, Whitehead saw ahead obstacles that would have torn the bottoms out of his boats. He ordered the squadron to turn and run parallel to the beach for a hundred yards before finding a clear path. He made many such cool decisions under duress in his life.

With an MBA from Harvard in hand, Whitehead joined Goldman Sachs in 1947. Jammed with half a dozen others into an unventilated former squash court, he rose quickly on the strength of his diligent work, scrupulous ethics and dexterity with a slide rule. Concerned that the firm was almost entirely reliant on its legendary leader, Sidney Weinberg, for business, Whitehead circulated a plan for new business development. The idea simmered until 1976 when Whitehead was made co-chairman, along with John Weinberg, Sidney's son.

The idea of soliciting business was almost radical in those days. Business executives had come to Sidney. It took a couple of years for the plan to gain traction, but it became a roaring success and was soon emulated by other firms. In time, Whitehead implemented a similar initiative for international business — his second invasion of Europe. There was no gunfire this time, but active resistance from other partners at Goldman and a chilly reception from London firms. But as in the domestic expansion, time and hard work won over the skeptics, and Whitehead proudly called Goldman the first *truly* international investment banking firm.

After a full career at Goldman Sachs, he was asked by President Reagan to be Deputy Secretary of State. In that role, his effort to cultivate direct and individual relations with Eastern European countries was an important element in ending the Cold War.

"It was one of the great honors of my life to be admitted to John's friendship," said Kissinger in his eulogy. "I met John when, in the last days of the Ford administration, he tried to convince me to join Goldman Sachs as a partner. I told him that I did not know enough about investment banking. Persuaded of my incapacity to value opportunity, John settled on friendship."

Kissinger said he agreed to teach Whitehead diplomacy, while Whitehead taught him economics. "This arrangement stood until John became Deputy Secretary of State under President Reagan — a job which he interpreted as an opportunity to fulfill his lifetime commitment to

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John Whitehead, founding chairman of the Lower Manhattan Development Corporation, watches as construction begins on the 9/11 Memorial, 2006.

the cause of freedom. John would make speeches about the imminent liberation of the satellite orbit, especially of Hungary—a prospect which conventional wisdom of the time considered premature, to say the least. But prophets are occasionally recognized in their lifetime. Eastern Europe became free in the timetable of John's vision, not the analysis of traditional experts."

Whitehead's dedication to the cause of freedom continued after his government service with many years of philanthropy and leadership at national and global non-profit organizations that continued for the rest of his life. He lobbied US Presidents tirelessly for the country to pay its full United Nations dues, and he joined the International Rescue Committee. Initially he was an assistant treasurer, but not surprisingly he rose to chairman. Whitehead's last great undertaking was as chairman of the Lower Manhattan Development Corporation (LMDC), the group responsible for remaking the Financial District after the terrorist attacks of September 11, 2001.

In her eulogy, journalist Lesley Stahl said that Whitehead became known throughout the realm as: "Sir John Who Could Never Say No."

"I first met him when he was Deputy Secretary of State, number two to George Shultz. It was 1986, during a particularly tough time for the administration, and the White House told Shultz that he had to appear on that Sunday's *Face the Nation*, which I was moderating. George did not want to face the nation that week, so he did what men at the top do: he turned to his number two. 'John, my man,' he said. 'What're you doing this Sunday at 10 am?' So 'Sir John Who Never Said No' came on the show and brilliantly practiced the fine art of cunning evasiveness. He answered 21 questions in 30 minutes, without producing one droplet of news. I thought it was a disaster; the White House thought it was a triumph!"

Another journalist, Tom Brokaw, detailed a telling moment from Whitehead's Wall Street career. "Shortly after he made partner at Goldman he took what he thought would be a leisurely trip to Europe and met in Vienna a Hungarian friend who was deeply involved in the revolution against the Soviets. He appealed to John for supplies: radios, arms, ammunition and food. John couldn't resist, the old supply officer instincts kicking in."

"He flew back to America," Brokaw related, "persuaded Juan Trippe [president of Pan Am] to lend him a plane, loaded it up with war materiel and without licensing or landing permits flew with it to Europe and off loaded it to his friends. John chuckled when he told me the story, saying, 'I still don't know how we got away with it.' John returned to Goldman and rose through the ranks, quickly earning a reputation as a champion of ethics and integrity on The Street."

Not all of Whitehead's exploits call to mind Han Solo, but they were no less daring. One, detailed in his book, relates his prescient pleas to Alan Greenspan for the chairman of the Federal Reserve to take steps to deflate the stock bubble of the late 1990s. Those were heroic but unsuccessful. The dot-com bust ensued.

The other, not related in his autobiography, shows that the calmness under fire and quick decision-making that first appeared off the beaches of Normandy continued to serve him and his country in the highest offices of power. In a 2006 conversation with economic

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John Whitehead and New York Senator Hillary Rodham Clinton at an LMDC press conference in 2002.

historian Richard Sylla [now chairman of the Museum of American Finance], which was recorded as part of the Museum's oral history project, Whitehead detailed his momentary but critical role in limiting the damage from the Crash of 1987.

"The next day, after the Crash, was really a key decision-making day," said Whitehead. "John Phelan, who was the chairman of the [New York] Stock Exchange, called the President. "Purely by coincidence I was having lunch with the President in the upstairs quarters of the White House that day. It was a meeting with the visiting president of Mali. In the middle of the luncheon a messenger came in and asked Reagan to leave the meeting. Soon the messenger came back and asked Howard Baker, Reagan's chief of staff, to leave. A couple of minutes later, Baker appeared at the door of the dining room and beckoned me."

Whitehead continued, "This was very embarrassing, but I excused myself and went out. There was President Reagan on the phone with Phelan about whether or not he should close the stock exchange. Phelan had asked the President to announce he was closing the exchange."

Whitehead explained that it was already lunchtime, and Phelan's problem was that many of the big stocks had not yet opened.

"Therefore, there was no market at all. It was beginning to feel panicky, and nobody could get a quote because with no opening price, you couldn't say whether the market was down more or up more," he said. "Half the Dow Jones Industrial Average stocks hadn't opened, so there was no average to announce. And his efforts to get the specialists to open the stocks were unavailing because the specialists weren't very bold after losing all that money in their inventories the day before."

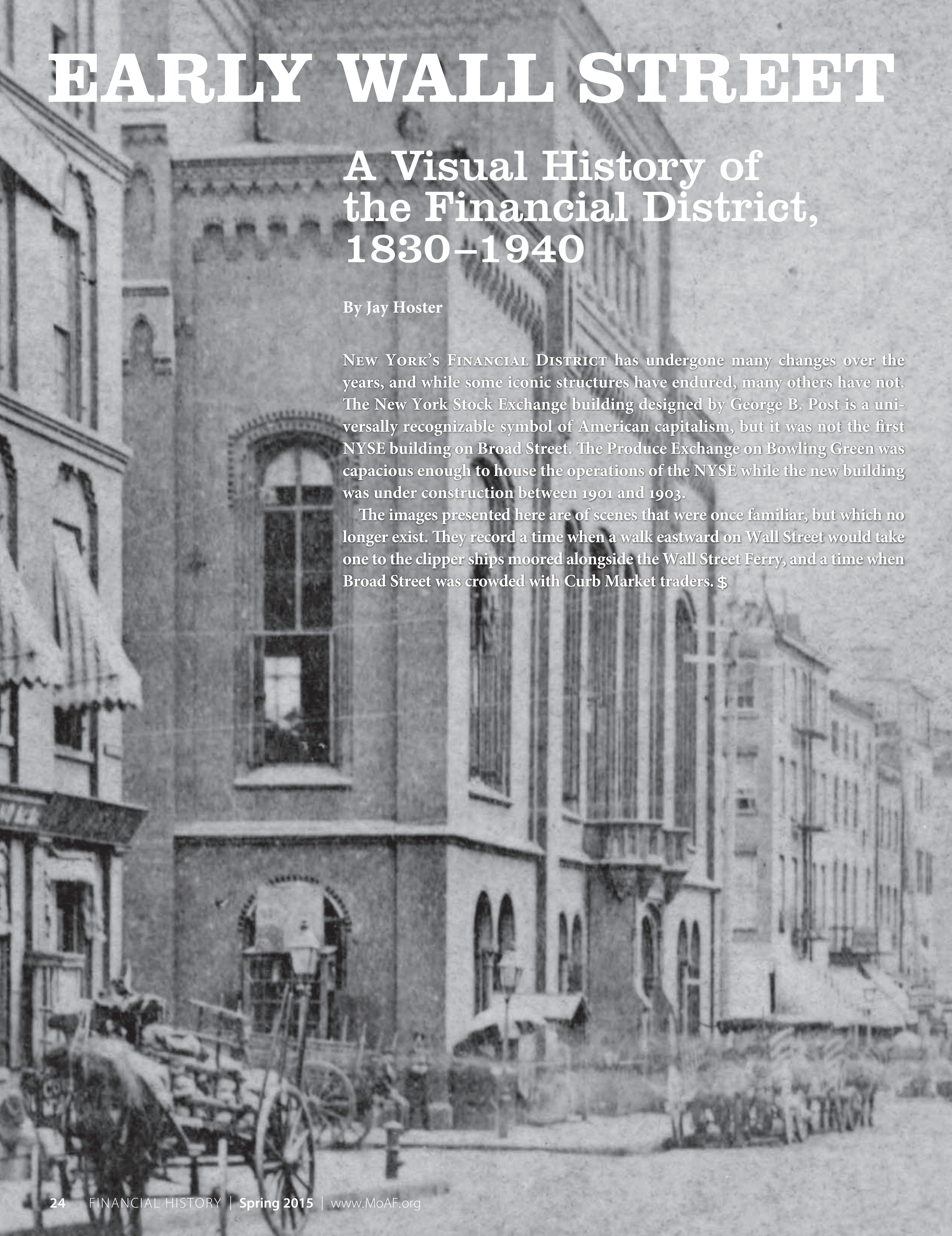
According to Whitehead, Phelan was giving an impassioned plea to the President to close the exchange, while Baker was trying to get the President back into the Mali meeting. "So Howard got the President off and said he'd take charge of it. I had been on the board of the stock exchange for a few months just before I went to Washington, and Phelan was a good friend. I was telling Howard what he should tell Phelan, which was to keep the market open. So when Phelan started arguing with Baker, Baker said to Phelan, 'I don't know anything about these things, but Whitehead is here, and I'm going to put him on.' So I took the phone and told Phelan 'I don't know what you should do, [but] the President is not going to close the stock exchange. If any [President] ever did that, he would be blamed for the market trouble. I don't want it to be Reagan's crash.'"

Whitehead advised Phelan that his experience with the stock exchange told him that people would rather have some market than no market at all. He warned him that closing the exchange would worsen the sense of panic, so he urged him to keep the exchange open.

"He was disappointed, and a little angry at me for interfering with his phone call to the President," Whitehead said. "But lo and behold, within an hour after that call, all the stocks had opened; there was a big rally as you remember."

Sylla replied, "There was, I remember. There's some news in that because I'm not sure it was widely thought that the exchange would close."

Although that story is not widely known, the many people who knew Whitehead would agree it is typical. David Cowen, president and CEO of the Museum, said "The Whitehead » *continued on page 38*



EARLY WALL STREET

A Visual History of the Financial District, 1830–1940

By Jay Hoster

New York's Financial District has undergone many changes over the years, and while some iconic structures have endured, many others have not. The New York Stock Exchange building designed by George B. Post is a universally recognizable symbol of American capitalism, but it was not the first NYSE building on Broad Street. The Produce Exchange on Bowling Green was capacious enough to house the operations of the NYSE while the new building was under construction between 1901 and 1903.

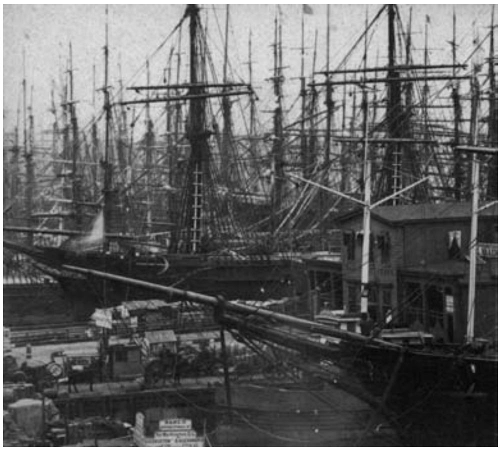
The images presented here are of scenes that were once familiar, but which no longer exist. They record a time when a walk eastward on Wall Street would take one to the clipper ships moored alongside the Wall Street Ferry, and a time when Broad Street was crowded with Curb Market traders. $

The first Produce Exchange was at 39 Whitehall Street, between Water and Pearl Streets. It was designed by Leopold Eidlitz and completed in 1861. After the Produce Exchange moved to a new building on Bowling Green, the United States Army Building was constructed in the 1880s on the foundations of this building. The Army Building was bombed by protestors during the Vietnam War.

George B. Post won a design competition for the new Produce Exchange at 2 Broadway, facing Bowling Green Park. The building required 4,000 drawings for its design, and the flag flying above the tower was at the time the largest ever made. The main hall of the Produce Exchange was 144 feet wide by 220 feet long and featured a skylight 60 feet above the floor. The Produce Exchange was demolished in 1957.

The New York Stock Exchange adopted its current name in 1863, and two years later the organization ceased being a tenant occupying a variety of rented spaces when it moved into its own building on Broad Street. This photograph from the renowned firm of E. & H.T. Anthony & Co. was taken when the marble of the exterior was still gleaming white. Later photographs show the effects of urban pollution.

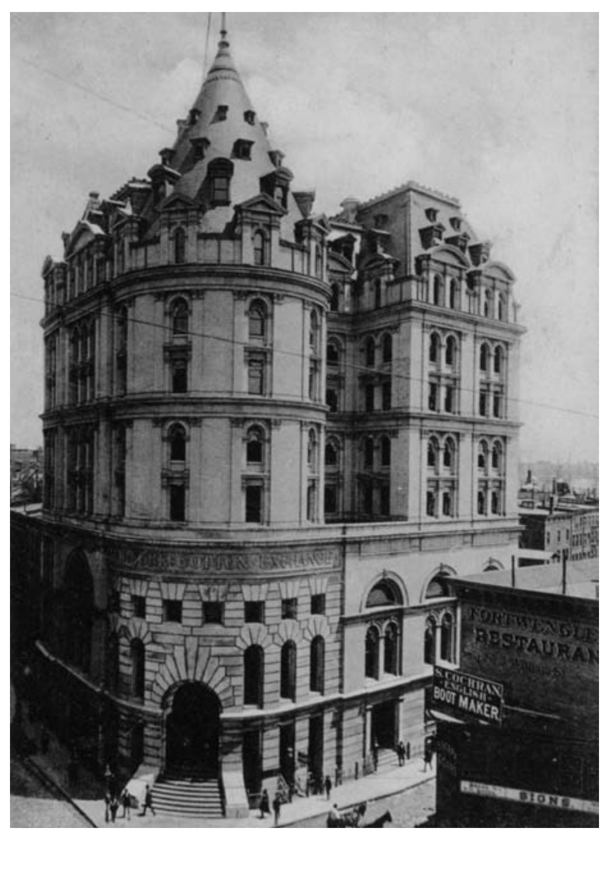
This 1880s photograph shows the entrance to the Drexel, Morgan & Co. building at 23 Wall Street at the left. At the time, J.P. Morgan was in partnership with the prominent Drexel family of Philadelphia. After the death of Anthony J. Drexel in 1893, the firm was renamed J.P. Morgan & Co. At the center of the photograph is the enlarged and extensively redesigned New York Stock Exchange. The architect for the project was James Renwick Jr., who also designed St. Patrick's Cathedral. His building for the NYSE featured eight polished red granite columns at the entryway.



The Wall Street Ferry building appears nearly surrounded by a dense forest of ships' masts in this 1865 photograph that supplies visual confirmation of Walt Whitman's description of "mast-hemm'd Manhattan." The clipper ship in the foreground is the *Dreadnought,* a three-masted medium clipper. The medium clippers were not quite as fast as the extreme clippers, but they were more practical because they could carry more cargo. The *Dreadnought* was wrecked off Tierra del Fuego on a voyage from Liverpool to San Francisco in 1869.

The Astor House was a well-known hotel on Broadway at Vesey Street. It was designed by Isaiah Rogers, who was also the architect of the second Merchants' Exchange, which today survives as the lower portion of 55 Wall Street. James Bogardus, the pioneer of cast iron architecture, was given the job of enclosing the building's courtyard in 1852, which became known as the Rotunda. This photograph shows one of the circular lunch counters. *King's Handbook of New York City* (1892) noted that this was "a much-frequented eating place for noon-day meals."

This 1915 photograph shows the Bank of New York Building at 48 Wall Street that was designed by Calvert Vaux. The building was completed in 1858, and a mansard roof was added in 1879. Vaux is best known today for his work with Frederick Law Olmsted in creating Central Park. A new building on the site, designed by Benjamin Wistar Morris, was completed in 1927 and now houses the Museum of American Finance.



George B. Post's design for the Cotton Exchange on Hanover Square was reminiscent of the architecture of the Chateau de Chambord in France's Loire Valley. The building was completed in 1885. The exchange room featured a triple window with Tiffany glass. The lower stories were clad in a type of limestone called Kentucky oolite. Brick and terra cotta were used for the upper stories, and the roof was composed of red slate.

This building at One Wall Street occupied a lot measuring only 30 by 40 feet. Completed in 1907, it was noteworthy for the high price of the land on which it was built. Its distinctive shape led to its being called the Chimney Building. It was demolished as part of the site acquisition for the Irving Trust Building, a masterpiece of the Art Deco style that was completed in 1931. The Bank of New York acquired Irving Trust in 1988, and a further merger with Mellon Financial Corporation led to the creation of BNY Mellon. In 2014, BNY Mellon sold One Wall Street to a joint venture led by Macklowe Properties.

The Hanover Bank was founded on Hanover Square in the building that is now India House. It became the Hanover National Bank when it joined the national banking system created during the Civil War. The bank moved to the southwest corner of Nassau and Pine Streets in 1877, where it built a six-story building, which was replaced by this structure in the early 20th century. This photograph dates from 1928. The building was demolished in 1931 for an expansion of Bankers Trust.

This banner at the American Exchange National Bank at 128 Broadway presented the message, "Fourth Liberty Loan Paves the Road to Berlin and Victory." Liberty Loans were government bonds that supported the war effort during World War I. The fourth series of Liberty Loans was issued on September 28, 1918. In the 1960s, this building became part of the site of 140 Broadway, a sleekly modern building clad in aluminum and glass. The plaza in front of 140 Broadway has a monument honoring developer Harry B. Helmsley, as well as Isamu Noguchi's sculpture, *Red Cube*.

This photograph shows how crowded Broad Street could become with Curb traders, although a motorist was evidently of the belief that the street might have uses other than securities trading. The New York Curb Market Agency was formed in 1908 to provide structure for the transactions. The Curb Market moved indoors in 1921.The name was changed in 1929 to the New York Curb Exchange and again in 1953, when it became the American Stock Exchange.

Jay Hoster is the author of Early Wall Street, 1830–1940 *(Arcadia Publishing), from which this material has been excerpted. All of the images are from the author's collection. He has previously written articles for* Financial History *on Fred Schwed Jr.'s* Where Are the Customers Yachts? *and the development of the term "blue chip."*

THE PINGREE PLAN

Library of Congress Prints and Photographs Division

New York's Response to Unemployment in the 1890s

By Julia Bricklin

The plight of Detroit's unemployed during the Depression of 1893 — triggered in large part by the collapse of the Reading Railroad and then the failure of the banks that depended on it — had a profound impact on its mayor, Hazen S. Pingree. During the early months of this downturn, thousands of workers in his town had their wages cut, and they soon faced even worse problems. The city's leading employers, including the Detroit Stove Works, the Michigan Peninsula Car Company and the Pullman Company, either suspended or drastically slashed production, forcing about a quarter of the city's labor force into unemployment. This economic disaster brought distress to both urban and rural populations. There were few social safety nets for the poor and destitute; programs like Social Security and the Supplemental Nutrition Assistance Program — food stamps — came much, much later.

Fortunately for both Detroit and the nation, Mayor Pingree was not only sensitive to human suffering, but also devised an immensely popular and effective response that soon bore his name, "Pingree's Potato Patch." He formulated a plan to raise private funds to buy seed and tools, which would be used to turn his city's vacant lots into gardens tilled by the starving poor for their own benefit.

Other metropolitan areas rapidly adopted Pingree's blueprint. Almost immediately, some of New York's townships — Rochester, Buffalo and New York City, for example — followed in Detroit's footsteps, obtaining mixed results. "Pingree's Potato Patches," as the Empire State press dubbed them, were proclaimed as an effective buffer against the hunger and poverty brought on by the Depression.

Community gardens were the most widely adopted and supported self–help concept during the Depression of the 1890s. There were others — farmers' railroads, food and goods cooperatives, labor exchanges and intentional communities — but gardens were characterized as a "useful emergency measure" to help those who are temporarily out of work to immediately sustain their families with nutrients, by way of "honorable toil."

Very simply speaking, the Plan required land donated by individuals and corporations to a central poor–relief organization, which in turn designated an agricultural committee to oversee the delineation, plowing and harvesting of produce. After fixing some initial problems, such as aerating and fertilizing poor quality soil, Detroit's prototype potato patches proved to be amazingly successful the first year. On approximately 430 acres, 945 financially troubled families produced crops conservatively valued at $14,000. The committee's expenses, paid mostly from donated funds, amounted to only $3,632.

"Not only did the gardens produce more than 40,000 bushels of potatoes," wrote H. Roger Grant, author of *Self Help in the 1890s Depression*, "but the bean crop was bountiful," and so were some pumpkin and squash yields.

While some political adversaries mocked Mayor Pingree by calling him "Tuber I," they knew that the plots worked well. Even more unemployed were able to work in the gardens in 1895, as depressed conditions continued and more donated land became available. More than twice the value of the prior year's goods was produced, and while these goods still consisted mostly of potatoes, beans and turnips, citizens also raised other vegetables. Detroit worked out kinks in its system, too. The Common Council, for example, paid $5,000 for 48 plots, instead of depending on private donations, making the program less vulnerable to private land sales. It justified the cost by earmarking the farms for future park use if they became unnecessary.

Papers in New York took notice. On September 27, 1894, for example, the *Herald-Tribune* wrote that there seemed to be "good margin of profit for the poor in the scheme." The *Sun and Erie County Independent* wrote that Pingree could "make a first class shoe, govern a city and give the world an example of practical charity that is worthy of emulation." The *Olean Democrat* declared that the [Detroit] mayor had trumped all his naysayers because he had figured out a way for the poor to help themselves, and thus "During the past winter Detroit had less poverty than any other city in the country."

Buffalo was the first large New York municipality to give vacant lot cultivation a formal try. In 1895, Mayor Edgar Boardman Hewett formed the Buffalo Industrial Association, which allocated vacant lands to cultivate crops and managed the monies earned from those crops — it never used donated lands like Detroit did its first year. It was deemed a success, since the gardens turned enough profit to register a marked falling off in demands for public relief. In 1898, Hewett's office reported that at least 10,590 persons were relieved in 1897, saving the city nearly $30,000 in poor relief.

Rochester followed suit, using its already–existing Overseer of the Poor

Portrait of Detroit Mayor Hazen S. Pingree, circa early 20th century.

bureau to supervise its program. The city used suburban land rented to it by private owners and had much more limited results. Men were paid wages by the city — not in dividends from their hard work — and only 2–3 workdays were available per week for each person who signed up. Each worker could still make $3–$4.50 each week, but wages were paid in the form of fuel or provisions made available in a "poor store," not cash. Thus, demand for these positions dried up fairly quickly.

"Tilling," wrote Grant, "became merely a part–time job, not a labor of love." And, the overall commitment and scope was limited — most times, the foodstuffs grown by the employees were handed directly to the non–working indigent, so there was no profit to be made, and also, the public treasury did not have enough money in it for more investment in seeds and land, limiting the program's ability to grow.

Brooklyn's mayor, Charles Adolph Schieren, was a good friend and admirer of Hazen Pingree. He visited him in Detroit in January of 1895, in order to learn more about reform measures, and also about the Pingree Plan. In May, Schieren declared that more land than he ever expected had already been donated, and that he expected to raise $5,000 from philanthropists for seeds, equipment and supervision. His office projected the net profit on the farming of 200 acres would exceed $6,000 by the end of the season. "If the average farmer could make half that from 200 acres, he would consider himself rich," noted the *Rome Daily Sentinel*.

But only a dozen or so families took advantage of the inaugural vacant lot program in Brooklyn, which was then an independent city. The *New York Herald* blared "Pingree Plan a Failure" around six weeks after the program started. It blamed the poor, noting that even with the advantage of free seed and soil, "the toilers of the tenements prefer to remain watching the sun bake the rear walls and sleeping on the roofs when the nights are unbearable indoors."

Conversely, other papers reported that the problem with Brooklyn's poor potato farmers was that they found the work so rewarding that they now wanted to move out of the city. Of course, neither of these assumptions was true.

Applicants from "Smoky Hollow" and "Darby's Patch" were few and far between, because getting transportation to the plots was difficult. In 1896 and 1897, though, increased numbers of families took advantage of vouchers for the Kings County Elevated Road, which took them safely to plots farther than walking distance from their homes. And while some people found city watchmen intimidating, others were glad to have protection against others stealing the fruits of their labor in the middle of the night. The farmers — many of whom were German immigrants — successfully raised potatoes, onions, radishes, beans and sweet corn. Again, like Rochester, the drawback was that little or no money changed hands: "If the Bureau of Charities…would pay these men 10 cents an hour for their work, and then dispose of the product, both sides could make some money," wrote the *New York Tribune* on July 21, 1896. "As far as a mere charity goes, it is a success, however."

New York City employed a much more satisfactory variation to the Pingree Plan. According to a New York Charities Review published in 1899, it had "perhaps done most of all to spread a knowledge of the methods and possibilities of this work." A cooperative gardening program was developed in conjunction with the extensive Detroit-like potato patches. Here, in 1895, the New York Association for Improving the Condition of the Poor (AICP) solicited the advice and services of other benevolent associations and magnanimous people, because of the city's seeming lack of cultivatable space. Postmaster Charles Dayton took a census of vacant lots and reported that there were 17,329 below 145th Street and the Harlem River, for a total of more than 1,000 acres. This year, William Steinway, son of the piano scion, donated 300 acres near Ravenswood, near Long Island City. Ex-Mayor Abram Hewitt gave a tract of land at Inwood, and Columbia College donated seven acres on a Morningside Heights location. These, along with smaller plots donated, totaled about 400 acres to be used for farming.

The Committee secured the supervisory services of Mr. John W. Kjelgaard, a practical farmer, at no cost. It established

Illustration of one of Pingree's potato patches that appeared in the *Buffalo New York Courier,* 1897.

several "application stations" in different points of the City, and if an applicant's credentials were satisfactory (e.g. he or she was not a felon), the person would receive a quarter acre plot that was accessible from where he or she lived. If the man had a large family, he was given half an acre.

The New York City variation of the Pingree Plan was more successful than its many sister programs throughout the rest of the state. The AICP not only hired the unemployed to garden at a respectable 7.5 cents an hour, but also, it gave three-cent hourly raises to those who faithfully tilled for more than a month. Additionally, after that trial month, a worker could obtain a share in the annual profits, earned by sales of the food to New York City area charities at market rates. Because an employee tilled the same garden consistently, the program instilled a feeling of ownership and pride. Also, New York City's version of the Pingree Plan allowed employees to take foodstuffs directly to their home tables as needed; this, in addition to wages and profit-sharing, did a lot to alleviate the worst effects of poverty.

Who was this man who motivated New York and many other states and cities to so quickly implement vacant lot gardening programs? Pingree may have been inspired by his own childhood. He was born near Denmark, Maine, on August 30, 1940, the son of an impoverished farmer. At 14, like many others his age, he was forced to leave school and work long and dangerous hours in a cotton mill, and later a leather factory.

According to Grant, when the Civil War broke out, Pingree experienced the horrors of the Second Battle of Bull Run, as well as the Battle of North Anna River in Virginia. He also spent five tortuous months during 1864 in the infamous Confederate prison camp at Andersonville, Georgia.

After the war, Pingree headed to Detroit with just a few dollars. Within a few years — like something out of a Horatio Alger story — he became a successful boot and shoe manufacturer. By 1888, he was fairly wealthy. In 1889, he ran for mayor of Detroit on the Republican ticket and was overwhelmingly elected as a "good government" politician with wide support from the city's business elite. But by the time the Depression struck, Pingree had formed a coalition of what his enemies called "workers and ethnics" rather than the "better people" and looked for ways to fight for public interest as opposed to business interests.

As for the community garden ideas that Pingree espoused, he may have recalled his own boyhood, when his family was often short of cash, but long on foodstuffs like potatoes and turnips. An associate of the politician once remarked that the idea "occurred to Mr. Pingree, while driving along the Boulevard in Detroit, that could but the poor and unemployed get a chance to cultivate some of the vacant and idle lands there [they could survive.]" Also, an unpublished biography of Pingree written in 1931 suggested that the project "originated in the gentle, anxious mind of Mrs. Pingree," who may have either seen or heard of the English "allotment plans," where the poor, through a system of rents, enjoyed access to garden plots.

The Pingree Plan and vacant lot programs in general were not flawless, and they were not meant to be permanent or whole measures of relief. The biggest problem, of course, was that donated, private land could at any time be bought and sold, disrupting crop cycles. If the land was city-owned, it was susceptible to "greater good" use, such as becoming a foundation for railroad tracks, paved streets or housing.

Pests and weather could and did wipe out swaths of crops. In some areas, families were so hungry that they ate their food before it had a chance to mature — in Kingston, New York, for example, the "poor ate the seed potatoes, instead of planting them." There were also some "victim of success" problems. For example, there was often no proper place available to store root vegetables before they could be brought to market, and some private farmers complained that the glut of potatoes in the marketplace was driving everybody's prices down. A Reading grower moaned that Buffalo reversed the natural order of things, and that "Thousands of bushels extra have been raised by the poor… Hence, the large consumers of potatoes have had no reason to buy any." Positively, the biggest threat to vacant lot gardens was, of course, when the economic crisis started to subside in late 1898.

On March 16, 1895, the *New York World* printed a community farmer's point-of-view, which was one regularly associated with Pingree's Plan:

> There is no reason why people with minds and strength should not have plenty and to spare, provided they will go [to] the farm and work. There are thousands of men and women in this city today who are on the verge of starvation. They will never do as well in a crowded city as they will out on little farms.

This statement, argues Grant, contains the essence of an overly simplistic argument that favored community gardens as a device to alter dramatically the nature of the national society — namely, to urge trapped urban dwellers to return to the land. And while Pingree's Plan enjoyed only a short heyday in the Empire State — perhaps only three or four strong growing seasons — this experiment did save hundreds of families from going hungry and falling into a hole of poverty from which they could never recover. $

Julia Bricklin writes about historical and economic issues for various publications. She is also Associate Editor for California History *quarterly, published by UC Press.*

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Healthy Finances

Investor Ownership in Medical Products Companies

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Polio vaccines are labeled and packaged at the Eli Lilly and Company plant, April 19, 1956.

By Michael A. Martorelli

Most domestic providers of prescription pharmaceuticals, over-the-counter medicines, simple hospital supplies and sophisticated medical devices have long been organized as for-profit entities and owned by public stockholders. Making a profit from providing these products has never been considered inappropriate, although critics have been vocal in challenging the prices the companies charge for their products. On several occasions in the 20th century, changes made in the system for regulating the safety and efficacy of drugs has had a substantial impact on the success of that industry. But none of those laws challenged the participants' rights to earn a profit.

Iconic drug companies such as Abbott Laboratories, Eli Lilly and Upjohn date their founding to the last quarter of the 19th century. These and other well-known manufacturers of drugs and hospital supplies, such as Johnson & Johnson and Merck, date their Initial Public Offerings (IPOs) to years as early as 1919 and as late as 1963. The commercial production of sophisticated medical devices dates only to the mid-20th century. Leading firms such as Baxter International and Medtronic date their founding back to the 1930s, but they also completed IPOs in the early 1960s. By the middle of the 1960s, investors interested in participating in the growth of the healthcare industry could buy stock in more than a dozen publicly held manufacturers of drugs, hospital supplies and medical devices.

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Filled vials of swine flu vaccine come off the assembly line at Merck, Sharp and Dome, October 2, 1976.

Making and Selling Medicines

In the closing decades of the 19th century, the American pharmaceutical industry consisted of hundreds of companies selling tinctures, ointments, tablets and syrups to treat conditions such as consumption, diphtheria and indigestion. Most firms were quite skillful at using aggressive advertising in mass market magazines and newspapers to sell their products, regardless of the safety or efficacy of those nostrums. Fewer were able to use the emerging knowledge of biology and chemistry to develop medicines that effectively treated disease.

Among the dozens of long-forgotten organizations producing alcohol and/or narcotic-based "remedies" were a number of firms dedicated to the high-quality production and sale of innovative products with tangible benefits. In the last two decades of the century, men with names such as Abbott, Lilly, Merck and Upjohn were able to distinguish their eponymous drug companies from firms such as Dr. D. Jayne & Sons, Lanman & Kemp and the Toiletine Company by accomplishing that task. Like many of their entrepreneurial colleagues, these men funded their start-up companies with personal assets and money from relatives, friends and partners. But the management teams who built upon the initial successes achieved by these companies, like their contemporaries in other industries, would eventually find the need to tap the country's lucrative equity market for additional growth capital.

Even after the passage of the Pure Food and Drug Act of 1906, many purveyors of ineffective medicines continued to sell their products. However, a growing share of pharmaceutical sales were being generated by the relatively small number of innovative product development organizations such as those noted above. Their first and second generation managements were prospering by internalizing the lessons of pharmacology and immunology to create effective products, and pushing the bounds of science by creating cooperative research relationships with credible academic institutions.

Merck & Co.

In 1827, Heinrich Emmanuel Merck founded a drug manufacturing business in Darmstadt, Germany. By 1887, the company was selling its alkaloids, bismuth salts and other products around the world. It opened a sales outlet of E. Merck in New York City in 1887 and established that office as a separate corporate entity named Merck & Co. in 1891. Over the next 20 years, the American firm blossomed into a leading provider of medical information and products, and it expanded into Canada. It also established a research laboratory and produced several information manuals for medical professionals.

In 1917, with the country preparing to enter World War I, President George Merck voluntarily turned over the portion of Merck & Co. stock owned by E. Merck to the Alien Property Custodian of the United States. In 1919, that office sold that stock at public auction, thus allowing Merck to become the first publicly-owned drug manufacturer.

Abbott Laboratories

In 1888, Dr. Wallace Calvin Abbott was using the liquid versions then available of morphine, quinine and strychnine; these products contained the active ingredients of plants and herbs, and they were somewhat useful remedies. In 1890, Dr. Abbott found a way to transform those liquids into solids, and to manufacture and sell them as granules. He established the Abbott Alkaloid Company as both a manufacturer and wholesaler of the most widely used narcotics. Sales grew consistently.

In 1915, the doctor renamed his company Abbott Laboratories and began to investigate other potential medicines.

© Corbis

A penicillin manufacturer at the Charles Pfizer factory tests cultures.

During World War I, he shepherded the acquisition of an antiseptic agent and the development of substitutes for important pain killers and sedatives previously available only from German manufacturers. In 1921, the company established a research laboratory; throughout the 1920s, it commercialized a variety of anesthetics, tranquilizers and sedatives. The company's need for additional funds to fuel its growth coincided with the robust economic and stock market conditions that prevailed in early 1929. That March, the company sold 20,000 shares to the public and became listed on the Chicago Stock Exchange.

Pfizer Inc.

Pfizer was initially founded as a manufacturer of fine chemicals. In 1849, Charles Pfizer borrowed $2,500 to establish the firm in Brooklyn, New York, and for the next 50 years it produced a variety of antiparasitics, pain killers and disinfectants. It also manufactured a range of pharmaceutical ingredients, such as citric acid, camphor and iodine. In 1900, the company filed a certificate of incorporation and issued 20,000 shares to family members and employees.

Pfizer continued developing useful products and production methods for the next several decades. By 1942, the company was in a good position to use its knowledge of fermentation technology to answer a government appeal to manufacture penicillin. Senior management invested millions of dollars in the project, including funds raised by selling stock to the public. It took just four months to begin producing mass quantities of the miracle drug.

Johnson & Johnson

In 1886, brothers Robert and James founded Johnson & Johnson to begin producing surgical dressings that built on Joseph Lister's discovery that airborne germs were a source of infection in hospital operating rooms. During the next few decades, the company introduced improved and sterilized versions of medicinal adhesives, absorbent wound dressings and catgut sutures.

During the 1920s, the second generation family management led the development of Band-Aid bandages, baby care products, absorbent sanitary napkins and a variety of surgical packs and gowns. The family-owned firm became a public company in 1944, as management added the public to the audiences to which they believed they had a social responsibility; the three others were customers, employees and the communities in which the company operated.

Eli Lilly

Eli Lilly was a Civil War surgeon from Indianapolis who formed a company to manufacture drug products in 1876. Like many others, the company used plants as the raw materials for fluid extracts, elixirs and syrups. Unlike others, it also developed innovative gelatin-coated capsules in many shapes and sizes. The company began distinguishing itself from other patent medicine makers early in the 20th century, when the founder's grandson (also named Eli Lilly) combined his interest in machinery with his degree from the Philadelphia College of Pharmacy to enhance the quality of its production efforts.

Lilly's grandson also supervised one of the earliest interactions between a drug company and an academic institution. In 1921, researchers at the University of

Toronto first produced insulin, a pancreatic extract that had a seemingly miraculous effect on diabetics. After two years of work, the company perfected the method to produce commercial quantities of that extract, bringing it extraordinary sales and profits. During the next few decades, it pioneered the synthesis of other drugs, and became an important producer of penicillin.

By 1950, this private company had about 200 stockholders, most of whom were employees or descendants of the founder. It achieved partial public ownership by floating a limited number of shares in the over-the-counter stock market in 1952; in July 1970, it offered more shares and made trading more feasible through a listing on the New York Stock Exchange.

Carter Products

In 1868, a druggist from Erie, Pennsylvania, named John Samuel Carter formulated an organic compound called bisacodyl into a pill he claimed would cure gastrointestinal ailments such as constipation, dyspepsia and biliousness. In 1880, he established the Carter Medicine Company to market his "Little Liver Pills" and other patent medicine products. During the next several decades, the lack of regulatory restrictions and a massive advertising effort enabled the company to remain afloat on the strength of those familiar and widely-used pills.

From the 1920s through the 1940s, a new management team focused not on pharmaceuticals but on consumer healthcare products such as a deodorant, a depilatory and an aerosol shaving cream; thanks to heavy advertising, Arrid, Nair and Rise became leaders in their product categories. Only in 1950 did the re-named Carter Products turn its sights to prescription drugs.

Several years later, it introduced Milltown, a first-of-its-kind tranquilizer that relaxed muscles and relieved mental stress. As the company celebrated its 75th anniversary in 1955, it was a leading sponsor and advertiser on the new vehicle of television. Two years later, on the strength of its success and popularity, this family-owned company sold stock to the public and became listed on the New York Stock Exchange.

Upjohn Company

In 1884, Dr. William Upjohn became frustrated with the inconsistency of medicines that were available only as fluid extracts of unstable and varying potency or pills that were not easily dissolved in the stomach. He patented a process making "friable" pills that could easily be crushed and turned into granules, so that their active ingredient would be absorbed and released throughout the body. A year later, Dr. Upjohn and three family members formed the Upjohn Pill and Granule Company to commercialize that process.

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Eli Lilly, president of Eli Lilly and Co., 1934.

Within another year, the new company had formulated more than 185 varieties of 56 different drugs, which it sold through two wholesale agents. The company gained a large measure of positive exposure with its exhibit at the 1893 Chicago World's Fair. It continued to prosper during the next five decades, as the renamed Upjohn Company developed new product formulations (such as an effervescent tablet) for an increasing assortment of drugs. It also led the industry in creating a professional sales force.

Company managers and Upjohn family members maintained control of the company. Beginning in 1954, however, they began to explore the value of going public and the necessity of putting a value on the increasing number of shares being distributed as gifts or in estates. In December 1958, the Board authorized the public sale of more than two million shares of stock as Upjohn became listed on the New York Stock Exchange.

During the early 1960s, many other well-established manufacturers of medical products also completed their IPOs.

- In 1960, **American Hospital Supply** began trading on the New York Stock Exchange. That wholesale supply firm had been founded in 1922 and had first sold a limited number of shares to the public in 1936.
- In 1961, **Baxter Laboratories'** stock began trading on the New York Stock Exchange. The company had been selling commercially prepared intravenous solutions and related hospital supplies since 1931. It had first sold a limited number of shares in the over-the-counter market in 1951.
- In 1963, **Becton Dickinson** listed its shares on the New York Stock Exchange, just a year after first selling a limited number in the over-the-counter market. That firm had been making thermometers, syringes and surgical instruments since 1897.
- And in 1963, **A.H. Robins** completed its first public offering of stock. That firm was the successor to the A.H. Robins Apothecary, which had been established in 1866.

Thus, by the mid-1960s, an investor could buy stock in any one of more than two dozen manufacturers of drugs, consumer healthcare products and sophisticated medical devices. **$**

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Financing the American Dream

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payments spread over 15 years and no balloon payment when the loan matured, the homeowner was spared the pain of losing his home to foreclosure.

According to Fishback, Rose and Snowden, "Although long-term amortized loans were offered in some corners of the housing finance market before 1930, in just a few short years the HOLC gave its borrowers access to these loans, part of a wholesale change in lending practices across the country." The B&Ls that survived the Depression discontinued share accumulation plans in favor of direct reduction loans that reduced the principal owed every time a borrower made a payment. These surviving firms became the basis for the modern savings and loan industry.

In addition to the HOLC, which was designed to be a temporary measure of relief, the federal government established the Federal Housing Administration (FHA) to provide mortgage insurance. The FHA adopted the HOLC's fixed-rate, long-term, fully-amortized mortgages and expanded the term to 20 years. In 1948, the FHA, in an attempt to stimulate construction, increased the maximum term to 30 years and ushered in the use of a financial instrument that has dominated the lending market ever since: the 30-year, fully-amortized, fixed-rate mortgage.

Instead of death, amortized mortgages breathed new life into the real estate market. Green and Wachter observe:

> America was transformed from a nation of urban renters to suburban homeowners: the ownership rate among US households rose from 43.6% in 1940…to 64% by 1980… The FHA mortgage was a key to this transformation. Its profitability to the US Treasury…induced large-scale entry of the private sector, which developed the self-amortizing, privately insured mortgage.

Here is an example of government intervention at its finest, where groundbreaking government policies made use of new financial innovations to revive a key part of the US economy. It's no wonder that our politicians are being urged to study the government's response to the 1930s housing crisis as they struggle to deal with the aftermath of the most recent housing crisis. $

Dr. Dan Cooper is the president of Active Learning Technologies. Brian Grinder is is a professor at Eastern Washington University and a member of Financial History*'s editorial board.*

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Notes

1. The OED offers an explanation of the etymological meaning of the term from Edward Coke's *The first part of the institutes of the lawes of England,* 1st edition, 1628:

   It seemeth that the cause why it is called mortgage is, for that it is doubtful whether the Feoffor [One who invests another with a fief.] *will pay at the day limited such summe or not, & if he doth not pay, then the Land which is put in pledge upon condition for the payment of the money, is taken from him for euer, and so dead to him upon condition, &c. And if he doth pay the money, then the pledge is dead as to the Tenant, &c.*

2. Gitman et. al. define the loan-to-value ratio as "the maximum percentage of the value of a property that the lender is willing to loan."

3. With an interest only loan, the borrower only pays the interest owed each month. As a result, the principal of the loan remains constant unless the borrower is able to make additional voluntary payments to reduce it over time. Most mortgage holders were unable to make those additional payments.

4. Snowden (2003) writes, "In the 1920s prospective homeowners throughout the United States thought first of the building and loan industry when they sought mortgage financing." He notes that B&Ls held about 50% of all institutionally-held mortgages on family homes during the last half of the 1920s.

From Disagreements to the First Divide

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he denounced the "incense" of admiring addresses that greeted the President in every city. He was aware that people were expressing their admiration for "the defender of the liberty of our country" but insisted that it all "favors too much of monarchy to be used by republicans."

Shares in the Bank of the United States went on sale on July 4, 1791, in Philadelphia, New York and Boston. Rumors had convinced not a few people that the government would pay 12% interest. Swarms of investors stormed the Treasury offices in Philadelphia, and 26,200 would-be buyers entered bids. The shares sold out within an hour. To widen participation, Hamilton marketed the $400 shares (about $6,000 in today's money) piecemeal; a would-be investor could pay only $25 for a document called "scrip" which entitled him to buy a certain number of shares, for which he would have to pay in full in 18 months.

For the first month, the price of scrip remained within reasonable bounds. But early in August, it zoomed into the stratosphere. Some people began calling the frenzied market "scrippomania." One friend warned Hamilton that the entire city of New York had become infected with gambling fever. Artisans were deserting their shops, storekeepers were auctioning off their goods to raise cash and not a few merchants had abandoned their normal business routines to speculate in scrip.

Another eyewitness said the city of Philadelphia had become "a great gaming house" with everyone from "merchants to clerks" betting on the soaring scrip. An alarmed Hamilton foresaw the danger of a bubble. He had already warned against "extravagant sallies of speculation" that could injure "the whole system of public credit" that he was struggling to create.

With President Washington's approval, Hamilton decided he had to intervene. He began "talking down" the price of scrip, telling several people he thought it was dangerously overvalued. Next he published a statement in *The Gazette of the United States,* signed by "A Real Friend to Public Credit," warning that the price of scrip was much too high and certain to decline. The figure he named was considerably above the price that some speculators, who were hoping to create a bear market, were suggesting. Next he ordered the cashier of the Bank of New York to buy $150,000 in government securities. The fever in scrip began to abate.

Nevertheless, Jefferson predicted serious damage to America's social order. He was convinced that a tailor whose scrip had made him several thousand dollars in a single day would never be willing to work for ordinary wages again. Congressman Madison, who was in New York when the investment fever was raging there, told Jefferson the speculators were all "stockjobbers and tories." Jefferson's

comments were equally abusive. In one letter he told Madison: "Several merchants from Richmond were here [in Philadelphia] lately. I suspect it was to dabble in federal filth."

In another letter to Jefferson, Madison feared "the stockjobbers will become the praetorian band of the government, at once its tool and its tyrant." (In ancient Rome, the Praetorian Guard was the emperor's private army, which could and sometimes did threaten both the unruly populace and the ruler.) Madison was convinced that the stockjobbers could be bribed by Congress's "largesses" or could overawe it "with clamours and combinations." He gloomily concluded that his imagination would not "attempt to set bounds to the daring depravity of the times."

The enthusiasm of these first investors was unquestionably extreme and merited some concern. But the apocalyptic reaction of Jefferson and Madison was even more extreme. It revealed a profound hostility to the very idea of public finance. Hamilton's successful intervention in the scrippomania bubble enabled President Washington to remain enthusiastic about the new financial system. He told one correspondent that the eagerness to buy shares in the Bank of United States was "unexampled proof of the resources of our countrymen and their confidence in [the] public measures" of the new federal government.

A war had begun — a struggle for the public mind — the political soul — of George Washington's America. At stake was the future of the experiment in independence to which he had devoted his life. $

Thomas Fleming is one of the best known historians of the American Revolution writing today. He is the author of more than a dozen books which have won praise and prizes from readers and fellow historians. This article has been adapted from his new book, The Great Divide: The Conflict Between Washington and Jefferson that Defined a Nation *(Da Capo, 2015), with the permission of the publisher.*

John Whitehead

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rule was to leave things better than you found them. John was full of wisdom. I liked the way he solved problems. He never got upset, and he was a phenomenal listener."

Whitehead himself stressed the importance of listening many times in his book. A frequent expression was "you can never learn anything when you are talking." That listening was hardly passive, though. Cowen said Whitehead was an archetype of *shibumi*—a Japanese word meaning literally "effortless perfection" but taken in business to mean "authority without domination."

Whitehead was co-chair of the Museum's Advisory Board, and Cowen noted that "he loved being co-chair of our Advisory Board, just as he was co-chairman at Goldman." Elaborating on the *shibumi* theme, he added, "John treated everyone with respect, regardless of their position in life. He was very generous with his time, but he always kept the big picture in his mind. That is leadership. And there was also always a touch of elegance with him."

William Donaldson, chairman of the Advisory Board at Perella Weinberg Partners and co-chair of the Museum's Advisory Board with John Whitehead, said Whitehead was a leader in everything he undertook.

"That ran from World War II to leading Goldman Sachs through growth and a reputation for integrity. After his long career on Wall Street he led a life of continuing contribution to numerous causes, especially the Lower Manhattan Development Corp.," Donaldson said. "John was a dear friend and a shining light in all things. But that light was brightest around his integrity."

Many of Whitehead's friends refer to his sense of humor, but none so fondly as his daughter Anne. "He had a great sense of humor, a zany, fun sense of humor. He loved the operettas of Gilbert & Sullivan, and would sing along to all the songs. He was passionate about music. He was also an avid sailor. We used to race sunfish on Nantucket, and would charter sailboats — always sailboats — up to 60-footers."

Not surprisingly, Whitehead was a mentor to succeeding generations, just as he had been fostered by some of the giants of Wall Street. In particular, Anne recalls a time when Janet Hanson joined the Whiteheads on a family vacation. Hanson was the first woman promoted to management at Goldman Sachs. She founded 85 Broads, an important organization of women executives named after Goldman's address at 85 Broad Street. It has since been renamed Ellevate. "Dad was a mentor of Janet's and a long-time friend," said Anne. She remembers fondly how her father feigned great indignation when Hanson beat him at bridge.

Another fond memory blends Anne's affection for her father with admiration for his holding high standards for himself and everyone.

"I was in fourth grade or so, and when Dad was home for dinner we would dress for dinner. Mom was hell-bent on my brother Gregory and me being brilliant conversationalists. So during dinner Dad turned to me and asked, 'So, Anne, what did you think of the Kosygin-Gromyko Pact?' I was in fourth grade! But Dad said we should know the headlines in the paper every day."

Anne Whitehead became a successful corporate attorney specializing in mergers and acquisitions, but she still keeps up on world and national news. "It became a strong bond between Dad and me. When my ex would see me rifling the newspapers he would ask, 'Oh, are we meeting with your father today?'"

Duncan Niederauer, former CEO of the New York Stock Exchange and recipient of the Museum's 2014 Whitehead Award for Distinguished Public Service and Financial Leadership, said Whitehead left a lasting impression on everyone he encountered.

"His principles of putting the client first, leaving every situation better than you found it and fulfilling one's obligation to pay it forward are among those that will stay with me throughout my life," Niederauer said. "He was a man among men, a leader among leaders, a hero among heroes and, most importantly, a citizen among citizens." $

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HOW MUCH DO YOU KNOW ABOUT FINANCIAL HISTORY?

TRIVIA QUIZ

By Bob Shabazian

1. What is the name of the 1896 series of currency considered by collectors to be the most beautiful paper money ever produced by the US government?

2. How many states still impose both an estate and an inheritance tax?

3. Who was the first female officer of the Federal Reserve?

4. How many times did the S&P 500 close at a record high in 2014?

5. Who is the only "real" woman to have her portrait appear on US paper money?

6. What state has the highest minimum wage?

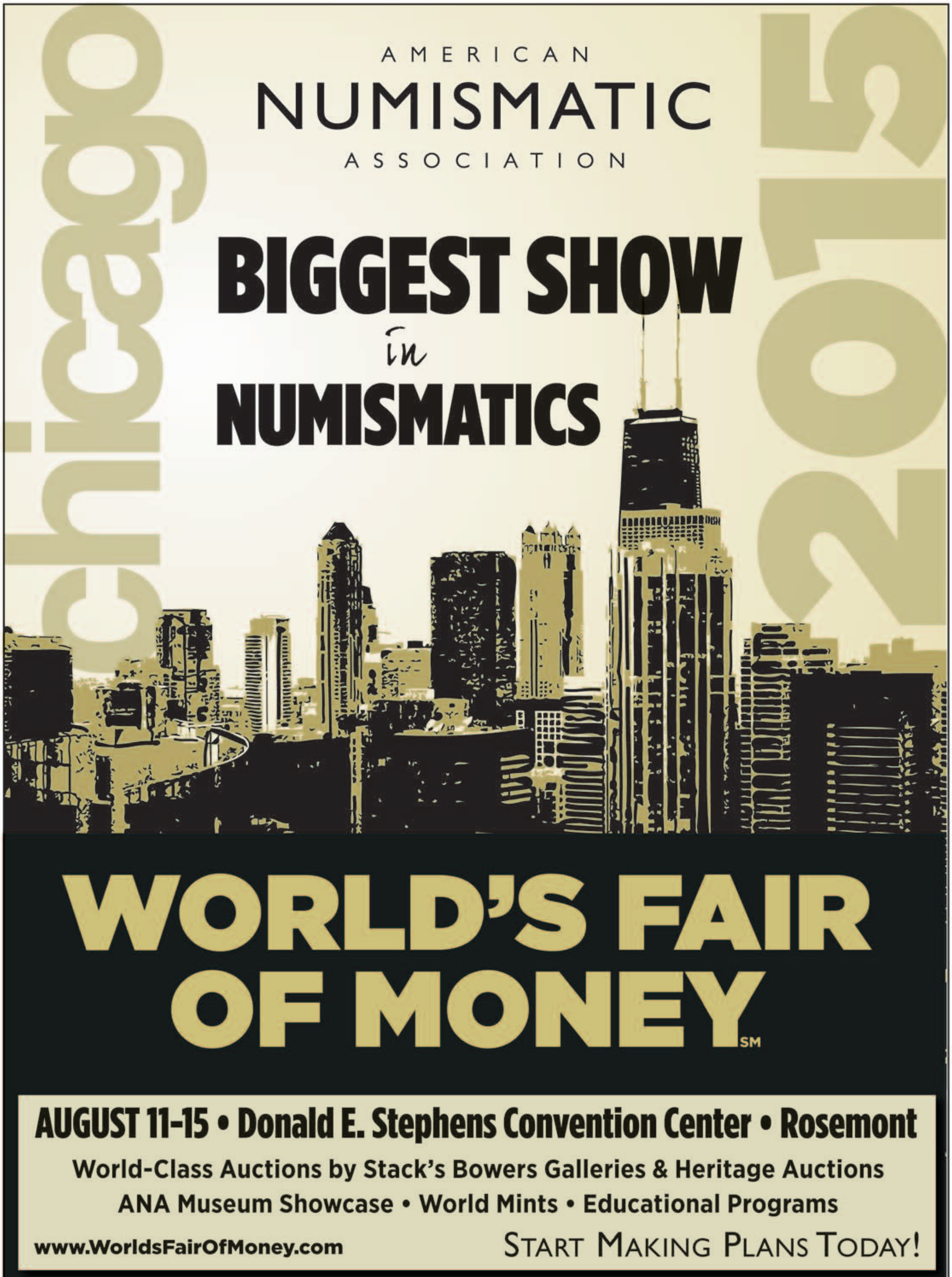
7. In what year did the US government stop issuing all notes larger than $100?

8. What founding father will be featured in a Broadway musical beginning in July?

9. What bank was founded by the Mormon Church?

10. What company raised a record $25 billion via its IPO in 2014?

1. The Educational Series **2.** Two states: New Jersey and Maryland **3.** Madeline McWhinney **4.** 52 **5.** Martha Washington **6.** Washington ($9.47 per hour) **7.** 1969 **8.** Alexander Hamilton **9.** Zions Bancorporation **10.** The Alibaba Group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